

*In this Issue***Particulate matter****European developments**

- New European Parliament and Commission
- Challenges: Climate Change
- Challenges: European Air Quality
- Short news

United Nations

- Stockholm Convention on POPs
- CRLTAP-POP Protocol

Ultrafine Particles: Report on the EFCA-symposium in Brussels**News on EFCA and its members**

- Assembly meeting
- NILU welcomed as Associate Member
- EFCA to elect new president
- News from members

Information on Technical Rules on air pollution prevention from KRdL**Calendar****Particulate matter**

The recent elections for the European Parliament and the prospect of a new Commission have brought a natural pause in the legislative process in Europe. The modest harvest of new proposals or votes in Parliament provided the opportunity to take stock of current topics and possible new proposals for legislation on which we report in this issue.

Particulate matter is one of the unavoidable topics in this respect and EFCA's recent symposium on Ultrafine particles (UFPs) has thrown some light on progress in this area and on remaining open questions. There is evidence of causal relations between UFPs and biochemical reactions in model systems which is in line with the results from epidemiological studies which show statistically significant relations of UFP numbers concentrations with short-term health effects. Results on long-term health effects of these are not yet available, though they are considered likely. Policymakers are aware of this: in the recently agreed EUROVI-regulation for heavy vehicles the option for an emission limit value for particle numbers has been included and a proposal may follow.

For a comprehensive policy however, a robust assessment of the specific health risks of the UFPs and their share when compared with the coarser fractions is not yet available. Chemical composition and properties of UFPs in relation to the detailed mechanisms of their impact *in vivo* have only been partially unravelled. Information on UFP-emissions from stationary rather than transport sources is still scarce; there is not an obligation to report these either.

The most interesting question which policymakers may want to have answered is whether limit values for PM₁₀ and PM_{2.5} have the potential to provide an adequate protection against health risks of UFP as well or whether an additional limit value for particle numbers or equivalent metrics will be necessary.

There is a tendency to review the matter in connection with the possible risks from the increasing number of applications of nanotechnology; the database for an assessment in this area is still not well developed. In this light an early 'no regret' measure to mitigate the UFP in diesel exhaust gases is likely to be the preferred option.

European developments

New European Parliament and Commission

Early this month the population of the European Union elected the new members of the European Parliament. While the gain of a number of new parties may reflect some uneasiness among European citizens with the results of the common market, the centre right parties of Christian democrats and Conservatives (European Peoples' Party) will remain the biggest fraction with 36% of the votes. Socialists lost ground, but remain the second-largest fraction at 22%; they are followed by the Alliance of Liberals and Democrats (10.9%). It is of interest to note that the Green parties improved their score from 5.5 to 6.9% and remain the fourth party in Parliament.

The Parliament will have its constituent session from 14-16 July. They will try to form trans-national groups of MEPs from the many new national parties and then elect the officers in the Parliament's Bureau (President, 14 Vice-presidents and 6 Quaestors). They will also have to vote on a second term of José Manuel Barroso as president of the European Commission.

The election outcome is not likely to result in substantial changes in the positioning of the Parliament towards proposals for legislation. However, after the summer the Parliament will receive the nominations for new Commissioners and the changes may make a difference here. In this respect it is worthwhile to note that the recently adopted Climate and Energy package reflects the need for an integrated policy development in these areas. A logical solution then could be the election of a coordinating Commissioner with subsequent consequences for the structure of the competent directorates. While the advantages of such a move cannot be denied, a departure of climate change policy from DG Environment may not favour another integration, pleaded for by EFCA, to harvest the potential co-benefits of integrated climate change and air pollution policies.

Whatever the outcome of the elections for the new Commissioners will be, it is clear that several challenges and pending proposals on environmental topics await the new dignitaries. EFCA has collected some of these below.

Challenges: Climate Change

Copenhagen negotiations

In December of this year the important negotiations on a new global agreement for emissions reductions of greenhouse gases as successor of the Kyoto Protocol are planned in Copenhagen. The urgency to conclude these successfully with an ambitious new global agreement is high. By agreeing on the Climate and Energy package the EU already showed its leadership and positioned itself as the region to lead the way. The big challenge in the short term is for the new Commission to convince the Parties to the Climate Treaty that an agreement with clear and ambitious targets is not only necessary but also feasible.

Recently reported figures on emissions will be helpful in arguing for the latter position. In 2007 total emissions (CO₂-equivalent) fell by 1.6% in the EU-15 against an economic growth of 2.7%. This resulted in a total reduction when compared with the base year of 5.0% which supports the conclusion that the EU is well on schedule for its Kyoto target of -8.0% in 2012. The reduced economic activities due to the financial crisis may only reinforce this trend in the near future.

In addition, a report on the transactions under the EU Emissions Trading System in 2008 concluded that there had been a fall of 3% in the emissions of the participating EU businesses.

Implementation of the Climate and Energy package

A second challenge for the Commission, though in the medium term, will consist of the successful

implementation of the different elements of the Climate and Energy package. An ambitious agreement may appear to be less easy to implement. The pace of developing renewable energy sources may be slower than expected; or agreed measures may appear less effective than previously estimated. This could require the development of additional policies in order to meet the agreed targets.

Recommendations of the Temporary Committee

There is, however, the certainty that the proposed package cannot be an endpoint and that much stricter policies will be necessary for the period 2020-2030 and beyond. In this respect the report of the Temporary Committee on Climate Change (see Newsletter no. 5) may prove to serve as guidance. One of the key recommendations in the report is: *“to incorporate global warming and climate change as new parameter into all spheres and policies and to take the causes and consequences of global warming and climate change into account in every relevant area of the EU legislation.”* When taken seriously this recommendation may require that the complete framework of European regulation may have to be reinvented via a process in which the carbon footprint of the individual Directives and measures is assessed. Here lies a major challenge for the new Commission as this would require a complete change of culture and, perhaps an even more drastic modification of the present structure of the Commission’s institutions than simply merging Energy and Climate only.

Climate Change Adaptation

A fourth topic that is to receive the new Commission’s attention is that of Adaptation to Climate Change. In a White Paper on the topic, published on 1 April of this year, the Commission pointed out that even the strongest mitigation policies will not prevent the impacts of Climate Change in the coming decades across Europe. The impacts may be felt in agriculture, as well as in human and ecosystem health; it will require adaptations in both coastal and river management. An approach in two phases is proposed: the first phase, foreseen for the period 2009-2012 is meant to prepare the strategy; the second phase will deal with its execution.

The Commission emphasizes that most adaptation measures are to be carried out by countries or

regions because the impacts will be different across Europe. The role of the EU will be to support and coordinate these efforts, particularly in cross-border issues and where they touch areas which are highly integrated at EU level. In its meeting of 25 June the Council adopted conclusions on the next steps.

Further information:

http://www.ec.europa.eu/environment/climate/adaptation/index_en.htm

Challenges: European Air Quality

The Thematic Strategy on Air Pollution (TSAP) for the period 2006-2011 which details the second period of the Clean Air for Europe (CAFE) Programme is presently half-way. It has resulted in the new Air Quality Directive (2008) and was accompanied by the adoption of the EURO-VI regulation on exhaust gas composition of heavy duty vehicles. Proposals for other elements of the TSAP, however, are still awaited or in the process of co-decision by the European Parliament and the Council.

National Emissions Ceilings Directive

The existing National Emissions Ceilings Directive details the ceiling levels to be reached in 2010. In the TSAP a revision has been announced which has to become effective from 2011 for the period till 2020; the preparative work for it is already more or less completed. However, in view of the interconnections with the Climate and Energy package - which includes national ceilings for greenhouse gases - the publication of this revision was postponed till after its adoption. Because of the short time remaining before the elections a further postponement also seemed appropriate. It seems likely that the proposal will now be among the priorities of the Commission.

Integrated Pollution Prevention Control Directive

The IPPC Directive, which covers the most important industries (52.000 installations in Europe) was issued in 1996. It has been the first step in a fully integrated approach to environmental problems and includes environmental impacts from industries on air, water and soil and covers both waste and noise

emissions. It has been amended four times and its latest version is in force from 2008. In the Directive, standards for industrial emissions are being set on the basis of reference documents for Best Available Techniques, known as BREF's.

In the context of a Better Regulation and simplification programme of the TSAP a recast of the IPPC Directive has been proposed which also includes six related legislations on industrial emissions (Large Combustion Plants (LCPs), Waste Incineration, Solvents and three Directives which regulate the production of titanium dioxide). The process of co-decision is halfway: the Council in its meeting on 25 June did not agree with the amended version of Parliament resulting from its First reading. In particular, the different positions on the LCPs, will require a Second reading.

A weak point of the existing IPPC Directive as well as its proposed recast is that it explicitly excludes the regulation of greenhouse gases. Also the BREFs, while useful to address short-term and short-distance problems, related to human health and environmental impacts do not formally deal with possible implications on climate change either. The stringent emission limits suggested will favour the use of end-of-pipe technologies with higher abatement efficiencies which require more energy and result in increased CO₂-emissions. The need for an integrated approach is obvious and well recognised; it has, however, to be laid down in robust legislation.

While the present procedure on co-decision of the recast will have to be completed the Commission may want to consider a more fundamental approach to the industrial emissions which takes on board the co-benefits concept. Apart from its integration in the IPPC Directive it is to be hoped that in the regular revision process of BREFs (<http://eippcb.jrc.es/reference/>) the challenge of the reduction of greenhouse gases will become a standard element.

Particulate Matter

In the new Air Quality Directive particulate matter (PM) has been addressed by introducing, next to the existent limit value for PM₁₀ an additional limit value for PM_{2.5}. A more articulated causal relation between atmospheric levels of PM_{2.5} and health risks than the one existing for PM₁₀ provided the basis for the regulation. The

requirement to monitor levels of PM_{2.5} in Member States from 2010 and report these nationally will provide the first information on the feasibility of the new limit value.

At the same time the complex situation regarding atmospheric PM continues and better approaches aiming at the protection of human health may emerge which requires the continued attention of the Commission. Among the current problems, there is still uncertainty on the preferred metrics of PM in view of the increasing evidence of the toxicity of the ultrafine particles (see report on EFCA's UFP symposium).

Another uncertainty concerns the legitimate allowance to correct monitoring data for natural PM-emissions. According to the AQ Directive a guideline is to be prepared and published before June 2010.

Short news

Ozone layer

On 25 March the European Parliament voted in favour of a proposal for reinforcing ozone legislation (2008/0165 (COD)) after a first reading vote. The proposal is a recast of Regulation 2037/2000. The new regulation will apply from 1 January 2010.

While following the agreement of the Montreal Protocol on Ozone Depleting Substances (ODS) it is more restrictive in a number of aspects. New elements of the Regulation include:

- A ban on all virgin hydrochlorofluorocarbons (HCFCs) whilst still allowing the use of recycled HCFCs until the end of 2014
- A ban on all uses of methyl bromide from 2010
- Measures to reinforce the prevention of the illegal trade in and remaining uses of banned substances
- Measures to prevent the dumping of ODS or obsolete equipment which contains these in developing countries.

Further details on the Commission's proposal are available at:

<http://ec.europa.eu/environment/ozone/review.htm>

Petrol vapour recovery

On 5 May the European Parliament also voted on the first reading in favour of a Directive on Stage II petrol vapour recovery during refuelling of passenger cars at service stations. Details of the Directive were discussed in Newsletter No. 5. The Council will now formally adopt the Directive which will then apply 20 days after its publication in the Official Journal of the EU.

Recent reports of the European Environment Agency

Spatial assessment of PM10 and ozone concentrations in Europe (2005) - EEA Technical report No. 1/2009 (publ. 24 March 2009)

Air pollution by ozone across Europe during summer 2008 - EEA Technical report No. 2/2009 (publ. 24 March 2009)

According to several indicators, ozone levels during the summer of 2008 were the lowest since 1997.

Annual European Community greenhouse gas inventory 1990–2007 and inventory report 2009 - EEA Technical report No. 4/2009 (publ. 29 May 2009)

Europe's onshore and offshore wind energy potential. EEA Technical report No. 6/2009 (publ. 8 June 2009)

The technical potential for wind energy in Europe is estimated to amount at least 20 times the electricity demand in 2020 with comparable shares on-shore and off-shore. Social and environmental constraints, however, reduce the off-shore potential by roughly 90%. On-shore the reduction is estimated at 10-15%.

United Nations

Stockholm Convention on POPs

The EU is party to the Stockholm Convention of the United Nations Environment Programme on the protection of the environment against Persistent Organic Pollutants (POPs). A proposal was presented for a Council decision on the position of the Commission at the 4th Conference of the Parties (COP4) to the Stockholm Protocol in May of this year to the effect that a total of 12 POPs could be added to Annexes A (banned chemicals), and C (unintentionally formed chemicals) of the Convention. Because the Convention's Sub-Committee on new chemicals had not completed the screening of some of these, COP4 decided to add only nine of the chemicals to the Annexes.

These are:

chlordecone, hexabromobiphenyl, pentachlorobenzene, lindane, alpha hexachlorocyclohexane

(α -HCH) and beta-hexachlorocyclohexane (β -HCH), tetra- and penta- bromodiphenyl ether (BDE), hexa- and heptabromodiphenyl ether, perfluorooctane sulfonic acid (PFOS) compounds. Full details on the decisions are available in the COP4 meeting report at: <http://chm.pops.int/>

CRLTAP-POP Protocol

The Commission also prepared a proposal to the effect that the POP Protocol of the Convention on LRTAP would be in agreement with the expected decisions on UNEP's Stockholm Convention on POPs. The EU is a party to the Convention on LRTAP and the proposal will be an input by the Commission when it comes to a revision of the POP Protocol under the Convention.

Ultrafine Particles

Sources, Effects, Risks and Mitigation Strategies

Report on the EFCA symposium in Brussels

In May 2009 EFCA conducted its second symposium on Ultrafine Particles (UFP). It was hosted by EFCA's German Member GUS, in cooperation with the Karlsruhe Institute of Technology, which welcomed about 80 participants in Brussels for a successful attempt to share the results of the symposium with representatives of the European Commission.

In comparison with the first symposium in 2007 a more balanced programme could be presented with three invited presentations which together covered the fields of research and the development on mitigation strategies.

Monitoring and source studies

A most striking observation was the increased activity in ambient monitoring of UFPs: presentations from six countries were noted, both by research groups as well as authorities. Several of these were in urban areas and demonstrated the marked influence of transport on the levels of UFPs, which appear to be more pronounced than on PM10.

In his keynote lecture *Roy Harrison* had already explained the dynamic behaviour of the UFPs in the atmosphere. He pointed out that their tendency to coagulate is a complicating factor when interpreting the results of ambient measurements since the speed of this process varies with atmospheric conditions such as temperature and wind speed.

A few more papers addressed the equipment for UFP-metrics and their quality assurance. Because the UFP fraction is inaccessible to mass measurements counting of particle numbers per unit volume has been the preferred metrics in most studies and report figures in the order of 10,000 particles/cm³ in suburban air rising to over 70,000 in traffic exposed surroundings. However, such information may not correspond with the actual exposure through deposition in the human lung or the mechanisms through which toxic activity is expressed in vivo. A new device which calculates the surface area concentration of airborne particles

that would deposit in the human lung, thus delivering a more dose-related metric, was described by *Carmen Nickel*.

The ambient studies were supplemented with dedicated studies on specific emitting sources and addressed, apart from traffic, incineration plants and residential heating, in particular through biomass. In addition, an inventory of the UFP-emissions of coal and oil-fired power plants in Europe was presented.



Karl-Friedrich Ziegahn, president of GUS, at the Opening Ceremony of the UFP-symposium

Health effects

The second day opened with a keynote lecture on Health Effects of UFPs by *Annette Peters*. She explained that the knowledge base is still limited because long-term effects have not yet been reported. The number of studies on short term effects is increasing and provides evidence of a correlation between acute mortality through heart failure and UFP-exposure. This correlation is more pronounced for casualties which spent three or more hours in traffic during the 24 hours preceding the final attack. An estimated 2-3% increase in health risk per additional 10,000 particles/cm³ was reported. Furthermore, other studies indicate that the toxicity of UFPs is, at least in part, causally related with their oxidative



Participants at the UFP-symposium together at the stairs of the building of the Representation of the State Bayern with the European Union

capacity: a vegetable diet (high anti-oxidant content) reduced the biochemical response. According to Mrs Peters, our knowledge on short-term effects means that also the risk of long-term health effects is potentially high.

Novel results reported by *Flemming Cassee* suggested that UFPs may cause effects in the human brain. Apart from a direct effect on the systemic blood circulation an effect on the processing of information has been found in human volunteers and confirmed in model experiments with potential neuro-degeneration at long term. *Ingeborg Kooter* compared the exhausts of cars running on conventional fuel or Biodiesel. First results suggested that PM-emissions are lower by mass but similar by numbers for Biodiesel; the toxicity of the particles from Biodiesel, however, seemed to be higher *in vitro*.

The scores of an expert elicitation, reported by *Jeroen de Hartog*, confirmed the likelihood of a causality of health effects from UFP exposure; respiratory inflammation and subsequent

thrombotic effects received a high likelihood rating of the proposed causal mechanisms explaining associations between UFP and cardiac events. Other mechanisms were also rated likely and the elicitation stressed the need for further research in this area.

Mitigation of ultrafine particles

The policy challenges for mitigation of UFPs were discussed in a keynote lecture by *Marion Wichmann-Fiebig*, representing the German Environmental Agency. She pointed out that the present incomplete knowledge base was a handicap for policy development, while at the same time the precautionary principle called for an attentive attitude. Key questions in this respect include the possible risks of nanotechnologies and could be summarised as:

- Is there a sufficiently quantifiable health risk?
- Could the present policy on PM_{2.5} mitigation be sufficient for UFP and a cost-effective means to protect human health?

- Do nanoparticles present additional risks and are such risks balanced by benefits?

The present position is that mitigation of UFP-emissions is to be pursued in all situations and in particular diesel exhaust gases. A more detailed policy would require a more robust knowledge base, while the position on nanotechnology is undecided.

André Zuber, representing the European Commission, informed the audience that the present Air Quality Directive is to be reviewed in 2013 which provides an opportunity to address the UFPs. It has already been agreed to set a Number standard on traffic exhaust gases by the Commission. For stationary sources the lack of a reporting obligation presently prevents the setting of standards. He pointed to the fact that the UFP problem includes not just the primary emissions, but also the secondary particles. The Commission presently investigates the need for legislation with respect to nanotechnology, such as labelling of products.

Referring to climate change policy he pointed out that the priority here lies with the long-lived

greenhouse gases, while admitting the win-win situation for black and organic carbon emissions.

Jose Jimenez Mingo highlighted relevant parts of the ongoing research programme of FP6 and opportunities provided by the 7th Framework Programme of the European Commission.

In the concluding discussion Panel members agreed that UFPs are to be considered as high risk pollutants, while admitting that a quantitative assessment is presently not possible. They advised when new policies are being developed to be alert that these do not cause unintended increases in the emission of ultrafines.

Conference chairman *Karl-Friedrich Ziegahn* expressed his gratitude for the interesting presentations and discussions during both days and invited all to reconvene in 2011, presumably in Brussels again.

A full Conference report is presently being prepared and will be posted at the EFCA website when available. A CD-ROM with the conference papers will be available from the Karlsruhe Institute of Technology after the summer; ordering is already possible by sending an e-mail to mrs Biserka Mathes at mathes@umwelt.fzk.de.

News on EFCA and its members

Assembly meeting

On 20 May of this year EFCA held its 18th Assembly meeting in Brussels. A major item on the agenda was a draft workplan for the next few years which was approved after a thorough discussion. The plan recognizes four major areas for further activities:

- Delivering the benefits of a combined approach to Climate Change Mitigation and Air Quality Improvement
- Support to the European Commission, Parliament, Council and Economic and Social Committee on the development and implementation of existing policy

- Support for EU enlargement through outreach on environmental policy
- Support for rapid development of clean technology in Europe

The interest of Members for its execution was encouraging and amounted to at least five activities in the next few years; for some of the items a commitment is still being sought.

NILU welcomed as Associate Member

At its meeting the Assembly accepted an application of *NILU - Norwegian Institute for Air Research* as Associate member of EFCA.

Research institutes are EFCA's natural partners, because they produce new results which are of interest for environmental policies; EFCA facilitates the public presentation of such results at dedicated conferences, often in cooperation with policymakers. While this cooperation generally proceeds via EFCA's national Member associations it is less effective with institutes in countries, such as Norway, where an active association which qualifies for Full membership does not exist. As NILU was the first institute to apply the Assembly agreed on a resolution in which EFCA's policy for dealing with future applications has been laid down.

With the acceptance of NILU, the number of organizations which participate in EFCA has increased to 15; EFCA is now represented in 13 European countries. A profile of NILU is available at the EFCA website.

EFCA to elect new president

EFCA's statute requires a periodic election of its president. A president is elected for a period of three years and may be re-elected once. The second term of EFCA president Giuseppe Fumarola comes to an end in September of this year and the matter was on the agenda of the Assembly last May. At the meeting, nominations were announced by two EFCA Members, APPA and VVM-CLAN. Confirmations will be requested and an election will be held by ballot letter in September.

News from members

Finland: FAPPS

The Finnish Air Pollution Prevention Association (FAPPS) elected several new Board members. Ms

Maria Jallinoja is now FAPPS' president; Mr Jari Viinanen is their new vice-president. Ms Sanni Turunen has been elected as secretary and she will also serve as FAPPS' international liaison officer. The new Board of FAPPS has expressed its interest to play a more active role in EFCA.

Netherlands: VVM-CLAN

When this Newsletter is published the 5th International symposium on Non-CO₂ Greenhouse Gases, organised by VVM-CLAN is about to start in Wageningen, The Netherlands. In the next issue of the Newsletter you will find information on the progress in this field.

Germany: KRdL im VDI/DIN

Our German member, the Commission on Air Pollution Prevention VDI and DIN – Standards Committee KRdL is renowned in Europe for its production of an impressive list of standards on methods and techniques for the various aspects of the prevention of air pollution. Their most recent publication, Guideline VDI 2308 Part 1, is on Assessment of health risks in environmental protection. At our request KRdL sent us a short overview of their activities and information how to be kept informed on new standards.

Norway: NILU

Dr Bjarne Sivertsen will be NILU's delegate in EFCA's Assembly.

IUAPPA

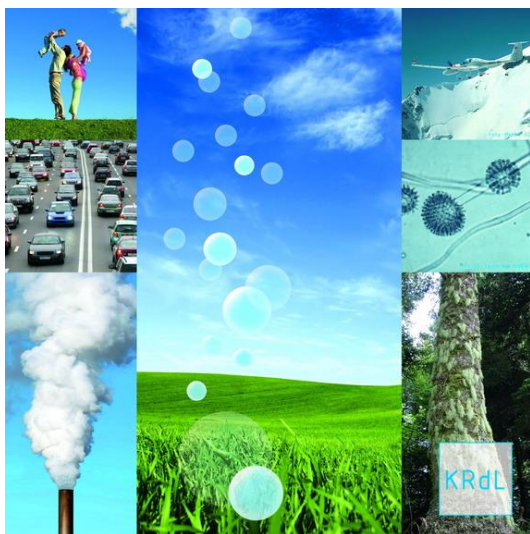
The Union is presently preparing for the 15th World Clean Air Congress. It will be hosted by IUAPPA's North-American member, the Air and Waste Management Association in September 2010 and the venue will be Vancouver, Canada. Further information will be made available at www.IUAPPA2010.com.

The Annual meeting of IUAPPA's International Board will be held in Tunis in November this year; it is hosted by the Tunisian NGO Women for Sustainable Development which joined IUAPPA eight years ago.

A new edition of IUAPPA's seminars series on Transport in Megacities, to be held in Tehran, Iran is presently being prepared.

Information on Technical Rules on air pollution prevention published by KRdL

In the Commission on Air Pollution Prevention of VDI and DIN - Standards Committee (KRdL) experts from science, industry and administration, acting on their own responsibility, establish VDI Guidelines and DIN Standards in the field of environmental protection.



The Technical Rules describe the state of the art in science and technology in the Federal Republic of Germany and serve as a decision-making aid in the preparatory stages of legislation and application of legal regulations and ordinances. KRdL's working results are also considered as the common German point of view in the establishment of technical rules on the European level by CEN (European Committee for Standardization) and on the international level by ISO (International Organization for Standardization).

The following topics are dealt with in four subdivisions:

Subdivision I "Environmental Protection Techniques"

Integrated pollution prevention and control for installations; procedures and installations for emission control; overall consideration of measures for emission control with consideration given to the air, water and soil; emission limits for dusts and gases; plant-related measurement

instructions; environmental industrial cost accounting

Subdivision II "Environmental Meteorology"

Dispersion of pollutants in the atmosphere; emissions from accidental releases; micro- and meso-scale wind field models; interaction between the atmosphere and surfaces; meteorological measurements; applied climatology; air pollution maps; human-biometeorological evaluation of climate and air hygiene; transfer of meteorological data

Subdivision III "Environmental Quality"

Effects of air pollutants on man, farm animals, vegetation, soil, materials, and the atmosphere; methods for the measurement and evaluation of effects; determination of microbial air pollutants and their effects; olfactometry; environmental simulation

Subdivision IV "Environmental Measurement Techniques"

Techniques for emission and ambient air measurements of inorganic and organic gases as well as particulate matter; optical open-path measurement methods; measurement of indoor air pollutants, measurement of soil air pollutants; procedures for establishing reference material; test procedures for measurement devices; validation procedures; measurement planning; evaluation methods; quality assurance

The guidelines and standards are first published as drafts. These are announced in the Bundesanzeiger (Federal Gazette) and in professional publications in order to give all interested parties the opportunity to participate in an official objection procedure. This procedure ensures that differing opinions can be considered before the final version is published.

If you are interested in receiving monthly information on the new Technical Rules published by the KRdL, please send an e-mail to: anne.steen@vdi.de. KRdL is looking forward to provide you with the latest information as soon as possible.

For further information about KRdL, please visit its website: www.air-pollution-prevention.net

Calendar

CfP = Deadline Call for Papers

5th International Symposium on Non-CO₂
Greenhouse Gases (NCGG-5) – **EFCA**
symposium
30 June – 3 July 2009, Wageningen, Netherlands
(www.ncgg5.org)

Bioenergy 2009
1-3 September 2009, Jyväskylä, Finland
(www.bioenergy2009.finbioenergy.fi) CFP: 30-6-09

4th International Conference on the
Environmental Effects of Nanoparticles and
Nanomaterials
Vienna, 6- 9 September 2009
(<http://nano2009.univie.ac.at>)

Measuring Air Pollutants by Diffuse Sampling
and Other Low Cost Techniques
15-17 September 2009, Krakow, Poland
(www.aamg-rsc.org)

2nd FINE!Dust-Free Congress
1 -2 October 2009, Klagenfurt on Lake
Wörthersee, Austria (www.life-spas.at)

Euroscience Mediterranean Event 2009
15-19 October 2009, Athens, Greece
(www.esme2009.org) CFP: 10-07-2009

Intermediate climate policies - the contribution of
air-pollution policies in relation to climate
stabilisation and co-control. Seminar arranged
under the Swedish EU-presidency
19-21 October 2009, Gothenburg, Sweden
(www.naturvardsverket.se/airclimconf)

ETTAP 2010 18th Transport and Air Pollution
Symposium
18-19 May 2010, Zürich, Switzerland
(www.inrets.fr/services/manif/ettap09/index-EN.htm); CFP: 20-11-2009

15th IUAPPA World Congress: Back to Basics:
Sharing solutions that work
11-16 September 2010, Vancouver, Canada
(www.IUAPPA2010.com)

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EFCA

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Vice-presidents	Jean-Marie Rambaud (APPA, France), Thomas Reichert (GUS e.V., Germany), Vladimira Vadjic (CAPP, Croatia)
Secretary-general	Joop van Ham (VVM-CLAN, The Netherlands)

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