

July - August 2014

### INTERNATIONAL REGULATORY DEVELOPMENTS

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#### **EUROPE**

### **New European Parliament**

The 8<sup>th</sup> legislature of the European Parliament started with the first plenary session held in Strasbourg, France from 1 to 3 July 2014.

Parliament rules foresee that political groups should have at least 25 MEPs from seven different member states. Seven political groups fulfilled these criteria. Political groups play an important role in setting the Parliament's agenda, the allocation of speaking time for debates as well as choosing the EP president, vice-presidents, committee chairs and rapporteurs. Also, groups enjoy additional support.

As of 24 June 2014, political groups for the 2014-2019 legislative term were:

- EPP (European People's Party), 221 MEPs, chaired by Manfred Weber from Germany,
- S&D (Progressive Alliance of Socialists and Democrats in the European Parliament), 191 MEPs, chaired by Martin Schultz from Germany,
- ECR (European Conservatives and Reformists),
   70 MEPs, chaired by Syed Kamall from the UK,
- ALDE (Alliance of Liberals and Democrats for Europe), 67 MEPs, chaired by Guy Verhofstadt from Belgium,
- GUE/NGL (European United Left/Nordic Green Left), 52 MEPs, chaired by Gabriele Zimmer from Germany,
- Greens/EFA (The Greens/European Free Alliances), 50 MEPs, co-chaired by Belgian Philippe Lamberts and German Rebecca Harms,
- EFD (Europe of Freedom and Direct Democracy),
   48 MEPs, co-chaired by UK's Nigel Farage and
   Italian David Borrelli.

The two main parliamentary groups (EPP and S&D) struck a coalition deal and divided the five year presidency of the European Parliament between them. The ALDE group also took part in the deal struck. On 1 July 2014 the new Parliament re-elected Martin Schultz (S&D, Germany) as Parliament president for another two and a half year term. MEP Schultz won 409 out of 612 valid votes cast in the first ballot. He will lead the Parliament until January 2017 when an MEP from the EPP group takes over.

Vice-presidents, responsible for administrative, staff and organisational matters, were also elected. The list of 14 EP vice-presidents includes MEP Antonio Tajani (EPP, Italy), the former Commissioner for Enterprise and Industry.

The numbers of MEPs to sit in the Parliament's twenty committees and two sub-committees were then approved in a vote on 2 July 2014 and the committees' membership lists were approved on the following day.

The Committee on the Environment, Public Health and Food Safety (ENVI) has 69 members, the Committee on Industry, Research and Energy (ITRE) has 67, the Committee on Transport and Tourism (TRAN) has 49, and the Committee on the Internal Market and Consumer Protection (IMCO) has 40 members.

The ENVI committee appointed MEP Giovanni La Via (Italy, EPP) as its chairman on 7 July 2014. MEP Peter Liese (Germany) will be co-ordinator of the EPP group, which will hold 20 seats, and outgoing ENVI chair MEP Matthias Groote (Germany) will be co-ordinator of the S&D's 17 members.

### Programme of the Italian Presidency of the European Council

On 1 July 2014 Italy took over the rotating Presidency of the Council of the European Union from Greece for the second half of 2014.

A Council programme with long-term objectives for the next 18 months was adopted mid-June 2014 by Italy, Latvia and Luxembourg, the next trio of EU Member States to hold presidency in 2014-2015.

The work programme of Italy was presented to the European Parliament during its first plenary session on 2 July 2014. Priorities of the Italian Presidency include growth and employment, a space for freedom and security, full exercise of citizenship rights and a stronger role of Europe in the world.

The programme nevertheless also includes some environment-related issues and says in particular that "Great attention will be given to the Clean Air Package. The Presidency will follow-up on the negotiations relating to the two legislative proposals: the National Emission Ceilings Directive and the Medium Combustion Plants Directive, advancing the work as far as possible in order to create a framework for further reducing air pollution at source and setting limits in order to control the negative effects of air pollution and protect human health and the environment from greater risks. The Presidency will make progress on the discussions on the Regulation concerning the reduction of pollutant emissions from road vehicles."

The Italian Presidency programme is at <a href="http://italia2014.eu/media/1227/programma-en1-def.pdf">http://italia2014.eu/media/1227/programma-en1-def.pdf</a>.

#### Interim Commissioners nominated

On 16 July 2014 the European Parliament approved nomination of four interim Commissioners to replace those who left to become Members of the European Parliament.

This includes Mr Ferdinando Nelli Feroci, up to now Permanent Representative of Italy to the European Union in Brussels, for Industry and Entrepreneurship. He replaces Mr Antonio Tajani. The four interim



Commissioners are to serve for the rest of the Commission's current term, which expires on 31 October 2014.

Following agreement by the Council, the four nominations were published in the Official Journal of the EU on 18 July 2014.

### **New Motorcycles Regulation published**

On 22 August 2014 Regulation (EU) 901/2014, implementing Regulation (EU) 168/2013 on the approval and market surveillance of two- or three-wheelers and quadricycles, was published in the Official Journal of the EU.

This Regulation establishes uniform conditions for the implementation of the administrative requirements for the approval of new two- or three-wheel vehicles and quadricycles, as well as systems, components and separate technical units designed and constructed for such vehicles. It also establishes the administrative requirements for placing on the market and entry into service of parts or equipment which may pose a serious risk to the correct functioning of essential systems.

The 2- or 3-wheelers and quadricycles Euro 4 and 5 legislative package is now complete.

Regulation (EU) 901/2014 is at <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0901&from=EN.">http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0901&from=EN.</a>

# **Corrigendum to Roadworthiness Directive published**

On 4 July 2014 a Corrigendum to Directive 2014/47/EU on the technical roadside inspection of the roadworthiness of commercial vehicles was published in the Official Journal.

The text postpones the date by which the European Commission is requested to report on the implementation and effects of the Directive, in particular on the Directive effectiveness in terms of improvement of road safety as well as the costs and benefits of the inclusion of N1 and O2 vehicles within the scope of the Directive. The reporting deadline is changed from 20 May 2016 to 20 May 2020.

The corrigendum is at <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2014:197:FULL&from=EN.">http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2014:197:FULL&from=EN.</a>

# MEP Question on CO<sub>2</sub> vs. Particulate Emissions Legislation for Cars

Hungarian MEP Béla Kovács asked the Commission why they had been legislating harmless  $CO_2$  emissions from cars to the detriment of carcinogenic  $PM_{2.5}$  and  $PM_{10}$  particulates.

Environment Commissioner Potočnik answered that there is no evidence that engine modifications to comply with requirements to reduce CO<sub>2</sub> emissions from motor vehicles have resulted in higher engine

emissions of particulate mass. The Euro 5/V emissions standards have actually reduced the allowed emission of PM by a factor of 30 (i.e. by 97%) compared to 1990 diesel models, he said. In addition, Euro 5 gasoline cars must comply with the same PM emission limit as diesels.

According to the Commission, the main pollution problem related to diesels relates to real-life nitrogen oxides (NOx) from light-duty vehicles, much higher than in the laboratory-based type-approval test. Both in the CARS 2020 Communication and the Clean Air Programme for Europe, the Commission has committed to resolving this problem "by introducing a new test cycle for the implementation of Euro 6".

Also, the Commission repeats the idea of a pollution performance-related vehicle label that will be explored as mentioned in the Clean Air package.

# Parliamentary Question on NO<sub>2</sub> Infringements in Member States

Before the renewal of the European Parliament former MEP Jacek Włosowicz (Poland, EFD) asked the European Commission about their position on infringements of Member States with regard to their NO<sub>2</sub> obligations, especially the UK where legal action has been taken.

Environment Commissioner Potočnik answered that all Member States where the  $NO_2$  limit values have been exceeded in the past three years were currently under investigation with a view to possible infringement action. He also added that EU funding had been made available to Member States that decide to include air quality in their partnership agreements and operational programmes under the European Structural and Investment Funds.

### **MEP Question on EU Approach to Air Pollution**

MEP Diane Dodds (UK) has asked the European Commission about the EU approach to tackle the air quality issue.

The answer provided by Environment Commissioner Potočnik notes that the Clean Air Policy Package includes proposals for new legislation on National Emission Ceilings and on Medium-scale Combustion Plants, as well as measures to improve the effectiveness of existing legislation such as the Ambient Air Quality Directive. Also the Commission presented the 2013 'Urban Mobility Package' which calls on Member States to provide more support to cities to improve urban mobility, a major source of urban air pollution.

The Commission encourages work towards improved air quality in many regions with severe air pollution. For key countries in the vicinity of the EU, support is



provided for awareness raising and capacity building through the European Neighbourhood Policy Instrument, and for China through the specific Policy Dialogue Support Instrument. In addition, there is active engagement within multilateral and international organisations, such as UNEP and its Climate and Clean Coalition and the UNECE Convention on Long-Range Transboundary Air Pollution (LRTAP).

### **MEP Question on Ozone Concentration Levels**

MEP Metsola (EPP, Malta) asked the European Commission how ozone concentrations exceedances were affecting the Clean Air Package.

Mr Potočnik, the Environment Commissioner, replied that EU-coordinated action was needed to address the persistent exceedances of EU target values for ground-level ozone. Precursors such as Volatile Organic Compounds (VOC) and nitrogen oxides (NOx) emissions would have to be reduced in the entire European region.

For that reason the Commission proposed in the Clean Air Package to ratify the 2012 amendment to the Gothenburg Protocol under the LRTAP Convention. The package also includes new emissions reduction commitments for the ozone precursors i.e. VOC by 50%, and NOx by 69% for 2030 compared to 2005.

### Bulgaria and Latvia requested to act on PM<sub>10</sub> Air Pollution

In the infringements package published on 10 July 2014 by the European Commission Bulgaria and Latvia are asked to improve protection for citizens from fine dust  $(PM_{10})$  pollution.

Citizens in all 6 zones and agglomerations in Bulgaria (AG Sofia, AG Plovdiv, AG Varna, North, South-West and South-East) have been exposed to excessive levels of  $PM_{10}$  since at least 2007. In Latvia, the Riga capital city zone is concerned.

The Commission said that both Member States have failed to take the necessary measures that should have been in place since 2007 to protect citizens' health, and asked them to take forward-looking, speedy and effective action to comply as soon as possible.

The reasoned opinion follows additional letters of formal notice sent to both Bulgaria and Latvia in January 2013. If Bulgaria and Latvia fail to act, the Commission may take the matter to the Court of Justice of the European Union.

# **EEA Report on Air Pollution Effects on Ecosystems**

The European Environmental Agency (EEA) published on 30 June 2014 a report on "Past and future exposure

of European freshwater and terrestrial habitats to acidifying and eutrophying air pollutants".

The report evaluates how European ecosystems were affected by acidifying and eutrophying air pollutants in the past decades, and also how they are predicted to be affected in the future if the 2012 amended Gothenburg Protocol under the Convention on Longrange Transboundary Air Pollution (LRTAP) will be fully implemented by 2020.

As SO<sub>2</sub> emissions have fallen, the relative contribution made by ammonia emitted from agricultural activities and nitrogen oxides emitted from combustion processes to surface water and soil acidification has increased or even become predominant in some regions in Europe. NH<sub>3</sub> and NOx are also eutrophying air pollutants.

The European Commission Air Quality package aimed to cut the percentage of the EU ecosystem area where eutrophication critical loads are exceeded to 35% by 2030, but this goal cannot be achieved, according to EEA. "Even if all technically feasible reduction measures are implemented, the area at risk of eutrophication will still be 51% in the EU-28 in 2030", the report says. The extent of critical load exceedances is projected to be 65% by 2020.

The outlook is more positive for acidification though. The report finds that, by 2020, critical load exceedances will be as low as they were in 1880, with only 4% of the EU ecosystem area affected.

EEA Technical Report No 11/2014 is at <a href="https://www.eea.europa.eu/publications/effects-of-air-pollution-on">www.eea.europa.eu/publications/effects-of-air-pollution-on</a>.

### **EEA Report on Green Economy and EU Policies**

On 15 July 2014 the European Environment Agency (EEA) published a report on "Resource-efficient green economy and EU policies".

The report highlights the major forces fostering the shift to a resource-efficient green economy in Europe, including the role of EU policies. While many environmental trends are gradually improving, the EU needs a more fundamental, systemic re-orientation of its economy if it is to meet some of its long-term environmental objectives, the report states.

"Innovation may be the single most important driver to change the inefficient way we currently use resources," EEA Executive Director Hans Bruyninckx said. "Environmental innovation is key to address the challenges of the 21st century. If we want to 'live well within the ecological limits of the planet' as stated in the 7th Environmental Action Programme, we will need to rely heavily on Europe's inventiveness. This is not just about new inventions — encouraging the uptake and



diffusion of new green technologies may be even more important."

Strong environmental regulation can give the EU a competitive advantage as an early adopter, the report argues. Other regions which want to import products into the EU are gradually adopting European norms such as vehicle emissions standards.

EEA Report No 2/2014 is at

 $\underline{www.eea.europa.eu/publications/resourceefficient-greeneconomy-and-eu.}$ 

### German Environmental Organisations call for Blue Label for NOx Reduction

German environmental groups have called for further development of the environmental zone framework to reduce air pollution by nitrogen oxides.

In a press conference in Berlin on 19 August 2014, the Federation for Environment and Nature Conservation Germany (BUND), Naturschutzbund Germany (NABU) and the Deutsche Umwelthilfe (DUH) called for the implementation of effective measures to combat the continuing high NOx burden in numerous cities. The organisations said that the introduction environmental zones has already resulted in a significant improvement in air quality because particulate pollution has been significantly reduced by the measure. However, many cities and municipalities suffer from high NOx pollution - according to the Federal Environment Agency (UBA), in 2013 56% of monitoring stations close to traffic exceeded EU limits.

The organisations said that the main source of NOx is diesel vehicles without suitable emissions control. In order to give municipalities the ability to exclude vehicles with high emissions of NOx from polluted areas, they called for the adoption of a legal and substantive framework for a Blue environmental badge, as a continuation of the current environmental zone control, in the coming year.

Jens Hilgenberg of BUND emphasized that "environmental zones have largely displaced vehicles without particulate filter from the inner cities, thus improving air and quality of life in cities significantly. The Blue Badge is a logical development of this successful instrument and will help to alleviate the burden of diesel vehicles without effective emission control." He said that a blue badge should apply to all vehicles that comply with the emission limit values for NO2 of Euro 6/VI. "This applies to more than 60% of the cars in the current inventory".

In their press release, the three organisations said that they assume that comprehensive information will ensure the acceptance of this measure in advance. "It is also expected that there will be the development of retrofit technologies for vehicles without corresponding emissions standard after the introduction of the legal framework, analogous to retrofit with diesel particulate filters. The associations are set to make strong for financial support."

A background paper is available (in German) at <a href="https://www.duh.de/uploads/media/Hintergrundpapier\_Blaue\_Plake">www.duh.de/uploads/media/Hintergrundpapier\_Blaue\_Plake</a> tte final 01.pdf.

# German NGOs call for Particle Filters for all Inland Waterway Vessels

On 25 July 2014 four Non-Governmental Organizations (NGOs) together in the "Soot free for the Climate" campaign and the "Clean Air" project protested on Museum Island in central Berlin, Germany against urban pollution coming from Inland Waterway Transport (IWT).

NGOs measured the number of particles during their protest to show how much the passenger ships passing by actually emit. They measured particle concentrations up to 35 times higher (max. 214 000 particles/cm³) than usual. Typical background concentrations in Berlin range between 3500-8000 particles/cm³.

With this action, environmentalists pointed out that ships can be of great importance for local emission concentrations in cities. In several German cities, they contribute significantly to local air pollution. On top of ambitious EU emission limit values for new vessels, additional incentives for early adopters are needed, NGOs said. They specifically called for the German government to create the possibility for municipalities to include ships into their Low Emission Zones.

#### **German Environmental Car List**

The German sustainable transport club Verkehrsclub Deutschland (VCD) has issued its 'Auto-Umweltliste 2014-2015'. In order to make it into the top ten of the list, best values are required in three categories: fuel consumption and CO<sub>2</sub>, noise, and amount and type of exhaust pollutants. The 'top ten' is dominated by hybrid and natural gas cars.

The Top Ten environmental car winner for 2014-2015 is the Lexus CT 200h, a hybrid car. Second place is shared by three gas powered cars: the Volkswagen eco up!, Seat Mii 1.0 Ecofuel Start and Stop, and the Škoda Citigo 1.0 CNG Green Tec. The rest of the top ten are the Peugeot 308 1.6 BlueHDi 120 Stop & Start, Audi A3 Sportback 1.4 TFSI g-tron S tronic, Toyota Prius Hybrid, Citroën C4 Cactus BlueHDi 100 82g, Volkswagen Polo 1.4 TDI BlueMotion, Toyota Yaris Hybrid, Peugeot 2008 1.2 Puretech 82 ETG5 Stop & Start, and the Citroën C1 VTi 68 Stop & Start.

The VCD also says that the listing shows that the 95 g CO<sub>2</sub>/km target for 2020 can be met without problems.



The "best climate car", the Toyota Yaris Hybrid, already emits only 75g CO<sub>2</sub>/km.

VCD also published an article on 'dangerous particles', saying that Direct Injection Gasoline engines also produce high levels of ultrafine particles. The simplest solution is the particle filter, which would cost between €20 and €50, VCD says, but manufacturers are often still choosing the much more expensive option of inengine measures. The Gasoline Particulate Filter is technically less sophisticated and less expensive than for diesels and could be integrated into the housing of the main muffler. The VCD Umweltliste report refers to a Mercedes S500 that is equipped with a GPF.

The VCD Umweltliste 2014-2015 is at <a href="https://www.vcd.org/auto-umweltliste-2014.html">www.vcd.org/auto-umweltliste-2014.html</a>.

### **UBA Annual Report**

In its annual report presented on 19 August 2014, the German Federal Environment Agency, the Umweltbundesamt (UBA), said that about 35% of all people in Germany are particularly affected by pollution in the air. These are the some 30 million inhabitants, who live in metropolitan areas. This is confirmed by UBA's analysis of NO<sub>2</sub> and particulate matter data. At about two-thirds of all traffic-orientated stations, NO<sub>2</sub> exceeds the EU average annual concentration limit of 40  $\mu$ g/m³, sometimes significantly. Cars, trucks and buses are responsible for the emission of 37% of NOx and 16% of particulate matter emissions.

UBA President Maria Krautzberger said "The public health nuisance caused by particulate matter and nitrogen dioxide is too large. The current limits for these pollutants are 15 years old. Especially for fine particles, this value was chosen as an entry. Now we need to reduce them further...The high concentrations of nitrogen dioxide on heavily travelled roads are primarily a health risk for asthmatics and allergy sufferers...We cannot rest on the success of air pollution control. We need stricter emission requirements at the EU level, such as for cars in real operation, mobile machinery, and industrial plants. Also in shipping and agriculture emissions must be significantly reduced".

The UBA says that environmental zones have proven their worth. Data showed that in Berlin, for instance, the environmental zone has decreased particularly harmful diesel particulate. However, UBA admits a declining importance of such zones, because the number of vehicles without green stickers is decreasing.

The report also comments that fireplaces and wood stoves in private households increasingly provide a health risk from air pollutant emissions. Environment Minister Barbara Hendricks said that there are currently around 14 million fireplaces, ovens and stoves in operation. According to the report they are responsible in the winter for up to 25% of particulate pollution. UBA

President Maria Krautzberger said that emissions could be reduced by using a suitable fuel (seasoned, untreated wood with a moisture content below 25%), regular inspections and legislation in which, from 2015, progressively stricter limits on small furnaces are introduced. Particularly hazardous intensive furnaces would then be decommissioned in the near future.

### **Dutch Report on Euro VI Heavy-duty Vehicles In-Service Emissions**

On 10 July 2014 TNO released a report on the results of the 2011-2013 Heavy-duty In-Service Emissions Testing Programme conducted for the Ministry of Infrastructure and Environment of the Netherlands.

The programme of 2011-2013 focussed on the real-world NOx and  $NO_2$  emissions of heavy commercial vehicles, because of the  $NO_2$  concentration exceedances observed in several locations in the country and the relative large contribution of these vehicles to local emissions, the report says.

According to TNO the Euro VI legislation has led to significantly lower real-world emissions of heavy commercial vehicles. On average, NOx emissions of Euro VI trucks and buses have decreased sharply compared to Euro V models. Long haulage trucks are especially much cleaner than preceding generations.

NOx Conformity Factors (i.e. ratio to the corresponding Euro standard) of Euro VI vehicles tested varied between 0.15 and 1.0, with 1.0 corresponding to the Euro VI limit of 460 mg/kWh. This is well below the regulatory limit of 1.5.

The NO/NO<sub>2</sub> composition of Euro VI vehicles tends to change towards a higher NO<sub>2</sub> share compared to Euro V models, probably for an optimum usage of the SCR aftertreatment system. Nevertheless the absolute levels of tailpipe NO<sub>2</sub> were very low due to low overall NOx emissions.

Two dual fuel vehicles, in which the engine operated in a mixed diesel/natural gas mode, were evaluated by TNO. In the dual-fuel mode, NOx emissions increased by 10 to 20% and high methane emissions were measured. This is however addressed with a specific methane limit for Euro VI vehicles.

TNO notes that vehicles tested in this programme were relatively new and therefore recommends monitoring of emissions throughout the useful life of vehicles.

Finally, TNO says that the Euro VI legislation can still be improved, mainly on emissions under urban driving conditions.

The report is available at

www.tno.nl/downloads/TNO%202014%20R10641-2%20In-Service%20Emissions%20Testing%20Programme\_2011-2013.pdf.



# UK Air Quality Grants and Updated NO<sub>2</sub> Compliance Projection

On 9 July 2014 the UK Department for Environment, Food & Rural Affairs (Defra) announced a £1 million (€1.25 million) government grant to improve air quality as part of this year's Air Quality Grant Programme.

The Grant Programme for 2014/15 will focus on supporting projects set up to tackle  $NO_2$  levels and mitigate emissions from road transport. Among the projects to receive grants last year were a £21 305 scheme to encourage cycling in Chichester, £18 950 to fund the introduction of 20 mph zones in Cambridge and a £23 500 feasibility study for changing road layouts and Heavy Goods vehicles routes in North Hertfordshire.

This grant announcement came with the revised air quality projections across the UK for meeting European limits for NO<sub>2</sub>. Emission factors for nitrogen oxides (NO and NO<sub>2</sub>) from road traffic have been updated to reflect more accurate assumptions on the performance of modern diesel vehicles and older petrol cars. The assumptions are more pessimistic than in previous projections, largely due to the failure of the European vehicle emissions standards for diesel cars to deliver the expected emission reductions of NOx, Defra said

According to this updated projection,  $NO_2$  limits in London, Birmingham, and Leeds are not foreseen to be met until after 2030. That is 20 years after the original deadline and five years later than previously admitted, Non-Governmental Organization (NGO) ClientEarth commented. "It's bad enough that the government has no intention of complying with these limits in the foreseeable future. It's even worse that they're trying to hide behind legal procedural rules to keep this quiet. We have a right to breathe clean air and the right to know when the government is failing to protect us... Another five years of delay means thousands more people will die or be made seriously ill. The UK needs to act now to get deadly diesel vehicles out of our towns and cities", ClientEarth said.

The updated UK NO<sub>2</sub> projection is at <a href="http://uk-air.defra.gov.uk/assets/documents/no2ten/140708">http://uk-air.defra.gov.uk/assets/documents/no2ten/140708</a> NO<sub>2</sub> projection\_tables\_FINAL.pdf.

### **London Mayor Air Quality Plan**

On 29 July 2014 the Mayor of London (UK), Boris Johnson, launched his new air quality manifesto.

Already vast improvements have been made, Johnson said. "The oldest and most polluting vehicles have been taken off the streets, standards for engines and buildings have been tightened and the world's largest bus retrofit programme has created the cleanest fleet in the world." Yet over recent years the Euro diesel engine standards have not delivered the emission

savings expected. This has created a generation of 'dirty diesels' which must now be addressed. The Mayor's plan for the world's first Ultra Low Emission Zone (ULEZ), encouraging all vehicles in central London to be ultra-low or zero emission from 2020, will help address the problem in a reasonable way.

Johnson therefore asked the UK government to put air quality at the heart of health, energy and climate change policies, with incentives to promote cleaner vehicles, and cash to tackle hotspots and purchase more cleaner vehicles. In addition he called on the European Commission to improve the testing of new engine emissions standards, and create a new fund to help European cities tackle pollution.

The Mayor's plans for the Ultra Low Emission Zone in 2020 are still subject to full consultation, but it is expected that it will require diesel cars to be Euro 6 standard and petrol cars at least Euro 4 or they will be subject to an additional 'ULEZ' charge, likely to be a similar amount to the Congestion Charge already in place in the city centre.

A new programme to tackle air pollution at schools and an ambitious public awareness campaign supporting the ULEZ will be launched in September 2014. The Mayor announced the retrofit of a further 400 older buses in London as well as plans to expand the electric bus fleet by a minimum of 300 by 2020.

Finally, Johnson pointed at recent "inaccurate and misleading reporting of claims that Oxford Street is the worst polluted place on the planet. Pollution levels in London are lower than for many other world cities. For example: average levels of nitrogen dioxide (NO<sub>2</sub>) from monitoring sites near busy roads in Stuttgart, Paris, Munich, Rome and Milan are all higher than those recorded for London, whilst Mexico City records levels of NO<sub>2</sub> nearly double that of London."

# London Mayor plans to reduce Construction Equipment Emissions

The Mayor of London, Boris Johnson, has also announced plans to require construction equipment to meet standards for both particulates and NOx. The new requirements are specifically designed to target the oldest and most polluting machinery. They have been laid out in the Mayor's mandatory Supplementary Planning Guidance (SPG) and will be implemented by local authorities in central London from September 2015, before being tightened and applied throughout the city over the next five years. The move is expected to cut emissions from machines used on sites across the capital by 40% by 2020.

Although occasional exemptions will be made for specialist equipment, machinery over 10 years old on all central London sites will need to replaced or retrofitted. The same rules will also apply to equipment



on developments of 10 or more homes or 1 000 square feet or more in Greater London.

The Mayor's press release says that "London is to become the first city in the world to introduce standards for construction machinery that limit particulate (PM10) and nitrogen oxide (NOx) emissions". Construction and demolition activity currently accounts for up to 15% of London's air pollutants, so cutting emissions from the capital's building sites is essential if the city is to comply with nitrogen dioxide legal limits. The Mayor is also calling on the UK Government to encourage and promote the cleanest vehicles through fiscal incentives that incorporate both carbon and air pollutant emission standards, improve testing of the new Euro 6 engine emission standard and use it to address vehicle emissions, update the Clean Air Act to give councils the right powers to deal with pollution and address emissions from construction, and to help London's public transport go ultra-low emission by 2020 with funds for hybrid/electric buses and zero emission capable taxis where air quality is worst.

### Real-World Emissions from Buses in Brighton and Hove, UK

On 21 July 2014 Ricardo released initial results of a test campaign on real-world emissions of buses conducted for the city of Brighton & Hove in the UK.

Tests were carried out on a Euro IV vehicle fitted with Exhaust Gas Recirculation (EGR), a Euro V vehicle fitted with Selective Catalytic Reduction (SCR), and a further Euro V SCR-equipped diesel-electric hybrid vehicle. Each bus was instrumented with Horiba's Portable Emissions Monitoring System (PEMS) equipment and artificially loaded with ballast representing a 70% passenger load. The vehicles were tested on multiple trips and in normal traffic during business hours, stopping at regular bus stops. A number of different drivers and driving styles were used in testing one of the three vehicles so that the effects of these variables could also be assessed.

The three vehicle types followed the expected trend of CO<sub>2</sub> and NOx reducing from Euro IV to V and from Euro V to Euro V hybrid. However it was also found that certification level is not necessarily a reliable predictor of the lowest comparative emissions performance at a particular location or instant in time.

No obvious influence of driver or driving style was observed on either  $CO_2$  or NOx emissions in this study (based on testing of the Euro IV bus).

Poor traffic flow on the westbound journey was the major contributor to higher NOx emissions in North Street. Erratic stop-start operation at this uphill stretch of the route, demanding multiple cycles of acceleration and braking would be expected to challenge the performance of EGR and SCR systems, and rapidly

deplete the batteries of hybrids. Ricardo concluded that initiatives aimed at smoothing traffic flow at this location and allowing buses to operate without unnecessarily frequent stop-start cycles, could have a large positive impact on both NOx emissions and fuel economy.

The results of the research were presented to Brighton & Hove City Council in early July 2014. Details will be published by Ricardo in technical papers and journals over the coming months.

# RAC Foundation Report on Air Quality and Road Transport in the UK

The Royal Automobile Club Foundation for Motoring (RAC Foundation) published on 4 June 2014 a report on air quality and road transport in the UK. The report was prepared by consultants Ricardo-AEA.

Half of the total national health impact of air pollution in the UK is estimated to be related to urban traffic emissions, amounting to between £4.5 billion and £10.6 billion ( $\in$ 5.7 – 13.4 billion) per year.

The RAC Foundation says that for a long time discussion on the environmental impact of vehicles has centred on their CO<sub>2</sub> emissions with PM and NOx emissions less well understood. The focus on CO<sub>2</sub> has led to big changes in consumer buying habits.

The report draws attention to the shift from petrol to diesel vehicles over the last twenty years and argues that ministers should consider introducing a new scrappage scheme aimed at taking the oldest and most polluting diesel cars off the road.

Over the past years Euro standards have actually helped achieve significant reductions in PM emissions from diesels. However these have not been matched by falls in NOx. Only now does the latest set of standards – Euro 6 – offer the prospect of a NOx reduction too. However, because cars have an average life span of more than a decade it will take several years for the newer, cleaner, models to work their way through the fleet.

The report can be downloaded at

www.racfoundation.org/assets/rac foundation/content/downloadables/racf\_ricardo\_aea\_air\_quality\_report\_hitchcock\_et\_al\_june\_2014.pdf.

### Report on Liquid Air Technology in UK Road Vehicles

The Liquid Air Energy Network, the Centre for Low Carbon Futures, and the University of Birmingham published on 4 June 2014 a report entitled 'Liquid Air on the Highway, the environmental and business case for liquid air commercial vehicles in the UK'.

The report explores the benefits and implications of liquid air introduction in commercial vehicles over the next 10 years. Two liquid air vehicle engines currently in development are suitable for heavy commercial



vehicles such as trucks and buses. The Dearman engine is a piston engine powered only by the phase change expansion of liquid air or liquid nitrogen while the Ricardo split cycle engine is an internal combustion engine that incorporates liquid nitrogen to raise its efficiency. Modelling suggests they could deliver diesel savings of 25-30%. The report adds that the integration of liquid air into transport could also see significant reductions in NOx and PM emissions.

Promising first applications include refrigerated trucks and trailers and heat hybrid buses and trucks. In fact, Trailer Refrigeration Units (TRUs) powered by auxiliary diesel engines can emit many times more NOx and PM than the truck's main drive engine or a diesel car because they are currently unregulated. According to the report, a fleet of 13 000 refrigerated trailers would reduce annual emissions of NOx by over 1800 tonnes, equivalent to taking almost 80 000 Euro 6 trucks or 1.2 million Euro 6 diesel cars off the road. Annual emissions of particulate matter (PM) would fall by 180 tonnes, equal to removing 367 000 such trucks from service — more than three times the entire UK articulated truck fleet today — or 2.2 million Euro 6 diesel cars.

The report is at

www.lowcarbonfutures.org/sites/default/files/LAIR%20Highway%20FINAL.pdf.

#### **Key Green Indicators in France**

On 17 July 2014 the French Ministry of Ecology, Sustainable Development and Energy published the 2014 version of their ten key green indicators.

The indicators describe the environmental situation in France on key issues: air and water quality, biodiversity, greenhouse gas emissions, natural disasters, waste generation, renewable energies and resources usage.

Air quality in the urban background (away from direct pollution sources) based on ozone,  $PM_{10}$ ,  $NO_2$  and  $SO_2$  generally improved between 2000 and 2012. This results primarily from the drop in  $SO_2$  concentrations. Nitrogen dioxide and  $PM_{10}$  levels are decreasing but regulatory limits are still frequently exceeded, especially close to road traffic. Ozone concentrations are very dependent of weather conditions and have stabilized since 2010.

Also, for the third consecutive year air pollution remains the environmental issue of primary concern for French citizens, garnering 42% of votes against 34% for climate change in a survey conducted in November 2013. The trend is confirmed with an increase of 7 points for air pollution since 2011, especially as the survey did not include the recent pollution episode in March 2014.

The green indicators (in French) are at <a href="https://www.developpement-durable.gouv.fr/IMG/pdf/Rep--">www.developpement-durable.gouv.fr/IMG/pdf/Rep--</a> <a href="https://linking.gouv.fr/IMG/pdf/Rep--">Indicateurs\_cles\_de\_I\_environnement.pdf</a>.

### Older Heavy-duty Vehicles Traffic Ban in the French Alps

A prefectural decree was signed on 21 July 2014 in the French Departments of Rhône-Alpes, Savoie, and Haute-Savoie, that bans traffic of the older heavy-duty vehicles during air pollution peaks.

On high-pollution warning events, the more polluting Heavy-duty vehicles certified to Euro I, II, or III levels, will be banned from roads in the Arve and Maurienne-Tarentaise valleys and from urban traffic in the region.

### **ADEME Funding for Clean Ferries**

ADEME, the French Environment and Energy Management Agency has launched a call for projects on investment funding for clean ferries.

An investment aid of €80 million is available for new and existing passenger ferries of more than 10 000 UMS operating on regular sea trips between EU ports. Eligible projects include dual-fuel engines using Liquefied Natural Gas (LNG), including for retrofit of existing vessels; and emission control systems to achieve future emissions requirements that go beyond EU requirements, such as SOx scrubbers and Selective Catalytic Reduction (SCR) systems.

Also, funding criteria say that vessels need to be registered in France and construction or retrofit work needs to be conducted in the EU.

The call is open until 31 December 2015.

More information (in French) is at <a href="https://www2.ademe.fr/servlet/getDoc?id=91826&cid=96&m=3&p1=1">www2.ademe.fr/servlet/getDoc?id=91826&cid=96&m=3&p1=1</a>.

# **EU Programme on Particulate Emissions from Wood Burning Appliances**

On 10 July 2014 INERIS, the French National Institute for Industrial Environment and Risks, released information on the on-going European project ENPME-TEST aiming at defining a common European method for the determination of particulate matter emissions of solid fuel burning appliances and boilers.

The goal of the project funded by ADEME – the French Environment and Energy Management Agency – is to validate a European method for measuring particles emissions from domestic wood burning devices.

Comparison tests of the four pre-selected methods are carried out on INERIS test benches. These methods include collection of solid particles on a filter followed by Volatile Organic Compounds (VOC) measurement by a Flame Ionization Detector (FID); an INERIS dilution method combined with on-line particulate mass measurement (Tapered Element Oscillating



Microbalance or TEOM), a Swiss method evaluating secondary organic aerosol formation potential in a micro smoke chamber; and a continuous PM mass measurement method specifically developed for real-world emissions of domestic wood heating applications.

### Russia delays Euro 5 Standard Introduction

On 5 August 2014 the Russian federal technical regulations for motor vehicle emissions were amended and a one year delay to the implementation of the Euro 5 standard for motor vehicles produced or sold in Russia was introduced.

The Euro 5 rules were to be implemented on 1 January 2015 but due to a lack of clean fuel in rural areas the date is now 1 January 2016.

#### **NORTH AMERICA**

### **US-EPA** sets Minimum Refill Interval for Urea Tanks

On 8 August 2014 the US Environmental Protection Agency (EPA) published its final rule on minimum refill intervals for the Diesel Exhaust Fluid (DEF) – the urea solution known in Europe as AdBlue®.

Until now, EPA reviewed refill intervals on a case-bycase basis but it has now set a minimum refill interval of 4000 miles (6400 km) for light-duty vehicles and light-duty trucks that use Selective Catalytic Reduction (SCR). For heavy-duty engines, the minimum interval is set at "at least as far (in miles or hours) as the vehicle's fuel capacity". For SCR-equipped non-road diesel engines, EPA says it is finalising a refill interval that is at least as long (in engine hours) as the vehicle's fuel capacity.

In addition the provisions for emergency vehicles (fire trucks, ambulances) have been extended to avoid power reductions in the event of the DEF not being available.

# **US-EPA** Report shows Progress in reducing Urban Air Toxics

A US Environmental Protection Agency (EPA) report released on 21 August 2014 shows the substantial progress that has been made to reduce air toxics across the country since the Clean Air Act Amendments of 1990.

The Second Integrated Urban Air Toxics Report to Congress - the final of two reports required under the Clean Air Act (CAA) to inform Congress of progress in reducing public health risks from urban air toxics - uses national emissions and air quality data to show that as well as a 66% reduction in benzene, near 60% reduction in mercury from anthropogenic sources, an

84% fall in lead in outdoor air, approximately 3 million tons per year of criteria pollutants like particulate matter and sulfur dioxide have been reduced from cars and trucks as co-benefits of air toxics reductions.

EPA expects reductions in air toxics from cars and trucks to grow to 80% by the year 2030 when newer, cleaner vehicles come onto the roads.

The report is available at www2.epa.gov/urban-air-toxics.

#### **US-EPA Assessment of Ozone Standard**

On 31 August 2014 the staff of the US environmental protection Agency's (EPA) Office of Air Quality Planning and Standards released the final version of the policy assessment for the review of the ozone National Ambient Air Quality Standard (NAAQS).

The current  $O_3$  standards were established in 2008. These standards include a primary  $O_3$  standard, to protect public health, of 75 ppb, and a secondary  $O_3$  standard, to protect public welfare, set identical to the primary standard. These 2008 standards are now under review, as required by the Clean Air Act.

The report recommends to further reduce the primary ozone standard from the current 75 ppb (parts per billion) to a revised level within the range of 70 ppb to 60 ppb – and preferably below 70 ppb.

This is based on scientific evidence that a level of 70 ppb is below the  $O_3$  exposure concentration that has been reported to elicit a broad range of respiratory effects; a level of 65 ppb is below the lowest exposure concentration at which the combined occurrence of respiratory symptoms and lung function decrements has been reported; and a level of 60 ppb corresponds to the lowest exposure concentration demonstrated to result in lung function decrements and pulmonary inflammation.

With regard to the secondary standard, the EPA staff concluded that it is appropriate to consider a range of levels from 17 to 7 ppm-hr.

The assessment report is at

 $\underline{www.epa.gov/ttn/naaqs/standards/ozone/data/20140829pa.pdf}.$ 

# Lawnmower Aftertreatment Device wins EPA Design Contest

A team of University of California, Riverside Bourns College of Engineering students, called NOx-Out, has won an EPA (Environmental Protection Agency) student design contest for developing an exhaust aftertreatment device that cuts CO, NOx, and PM emissions from lawnmowers.

The device is an L-shaped piece of stainless steel in which a wire mesh filter and a honeycomb catalyst are fitted. It replaces the lawnmower's muffler and reduces CO by 87%, NOx by 67% and PM by 44% when tested.



With the improved version of the device, 93% of PM emissions were eliminated.

EPA estimates that a gasoline-powered lawnmower emits 11 times more pollutants than a new car for each hour of operation. The team believes there is a market for the device for lawnmower manufacturers and current lawnmower owners, especially operators of landscape companies, who could retrofit their existing gasoline-powered lawnmower. They expect the device would sell for about \$30 (€20).

The students won a phase one grant of \$15 000 (€11 000) as part of the EPA's P3 (People, Prosperity and the Planet) competition. In 2015 a new group of students will take over the project and compete for a \$90 000 phase two grant.

The next team will work to further improve the device. Possible areas for refinement include scaling it up so that it could be used with rider lawnmowers and develop a way to insulate it.

### California granted Waiver for Heavy-Duty Truck Greenhouse Gas Regulation

In the US Federal Register of 7 August 2014, the Environmental Protection Agency (EPA) published their decision to grant a waiver to the California Air Resources Board for its Heavy-duty Tractor-Trailer Greenhouse Gas Regulation. The Regulation applies to 2011-2013 model year Class 8 trucks with sleeper cabs and 2011 and newer dry-van and refrigerated-van trailers for them that are 53 ft (just over 16 m) or longer.

The regulation requires aerodynamic upgrades and the use of low rolling resistance tyres. The Regulation applies to all tractors and trailers when driven on a highway within California, whether or not they are registered in that State.

### **US Court of Appeals Decision on Power Plant Emissions**

In a case concerning a power company's plans for a new gas-fired, combined cycle power plant in central California, the US Court of Appeals (9th Circuit) has ruled that companies must meet air pollution standards in force at the time a permit is finalised, rather than the standards that were in place when a permit application was submitted.

In the case in question, the US Environmental Protection Agency (EPA) took so long to process the permit that new standards came into effect. The Court of Appeals decision follows a series of legal actions resulting from this.

#### **ASIA PACIFIC**

# **ICCT Policy Update on Chinese Fuel Consumption Standard**

On 10 July 2014 the International Council on Clean Transportation (ICCT) issued a policy update on China Phase 3 new passenger car fuel consumption.

China's Ministry of Industry and Information Technology released its proposed implementation rule for the China Phase 3 new passenger car fuel consumption standard (GB 27999-2011) on 7 May 2014. The proposed rule lays out a suite of measures to ensure manufacturer compliance while Phase 1 specified the standard values in 2011 and Phase 2 established the accounting method in 2012.

Key elements of Phase 3 include to publicly name whose manufacturers corporate-average consumption (CAFC) levels exceed China's 2015 fleetwide target (6.9 l/100km), even if the manufacturer meets its individual CAFC target; to ban the production of new models that cannot meet their specific weightbased standard targets in the next year if a manufacturer failed its CAFC target for the current year; to require manufacturers that fail to meet their specific annual CAFC targets to submit a feasible improvement plan to the regulatory agency, specifying detailed steps they will take to come into compliance; to deny approval of manufacturing plant expansion or new construction if a sales recalculation based on the expansion or new construction does not meet an OEM's target; and to allow limited manufacturer pooling for the purpose of meeting the CAFC targets.

The ICCT report is at

http://theicct.org/sites/default/files/publications/ICCTupdate China CAFC implementation june2014.pdf.

### Cities Clean Air Partnership launched

The Cities Clean Air Partnership (CCAP) was launched on 8 August 2014 by the US Environmental Protection Agency (EPA), the Taiwan Environmental Protection Administration (EPAT), and Clean Air Asia.

Clean Air Asia, an air quality network for Asia by the Asian Development Bank, World Bank, and USAID, is developing the CCAP. It is planned to be a 3-year programme that will reduce air pollution and its impacts in Asian cities through a strategy of facilitating city-to-city partnerships in air quality management efforts as well as voluntary city certification.

More information on CCAP is available at <a href="http://cleanairinitiative.org/portal/ccap">http://cleanairinitiative.org/portal/ccap</a>.

#### **Pollution Reduction in Beijing**

On 12 August 2014 the Beijing Environmental Protection Bureau released a report on reduction of pollution levels in the city.



Beijing has reached its emissions reduction goals for the first half of 2014 and levels of major pollutants such as  $SO_2$  and NOx are continuing to decline. A series of measures including removal of 176 000 old vehicles from the roads and stricter regulations on granting license plates contributed to a reduction of 7.59% year-on-year of nitrogen oxide concentrations.

In the same period, SO<sub>2</sub> emissions declined by 5.43%.

### Air Pollution in Beijing impacts Tourism

Xinhua Chinese state media reported on 1 July 2014 on decreasing tourists' visits in Beijing, blaming it on bad air quality.

With 4.5 million foreign visitors arriving in Beijing during 2013, the number of overseas tourists visiting China's capital fell by 10% compared to 2012. This is the first drop since 2008. "Smoggy weather" contributed to the fall along with a sluggish global economy, Xinhua quoted the Beijing Tourism Society as saying.

### Fine Particulate Matter continues to be a Problem in India

The 2013-14 Environmental Status Report for the Indian township of Navi Mumbai, a 'new town' developed in Maharashtra from 1972, says that concentrations of SO<sub>2</sub> and NO<sub>2</sub> were found to be within permissible limits, but pollution due to fine particulate matter continues to be an issue at monitoring stations in Koparkhairane and Vashi, due to heavy traffic.

A civic official said that "We have put in much effort to ensure the city's air quality is maintained in permissible limits, as mentioned in the National Ambient Air Quality Standards (NAAQS)".

Meanwhile the most recent records of the Karnataka Pollution Control Board (KSPCB) show that Respirable Suspended Particulate Matter (RSPM) was over four times the national permissible limit of 60  $\mu$ g/m³ in certain areas of Bangalore. Levels of this pollutant reached 264  $\mu$ g/m³ in the AMCO Batteries area and even 164  $\mu$ g/m³ at the sensitive area of Victoria Hospital. However, the levels of sulfur dioxide and nitrogen dioxide were found to be within the permissible standards of 50  $\mu$ g/m³ and 40  $\mu$ g/m³ respectively.

The KSPCB monitored air quality in 15 locations across Bangalore, covering industrial areas, mixed urban areas and sensitive areas such as hospitals and educational institutions. With the exception of two locations, RSPM levels consistently exceeded the permissible limit over the last year.

KSPCB says that the transport sector is the highest contributor to the rising levels of air pollution, comprising nearly 44%. A recent inspection conducted by the Transport Department revealed that nine of the

12 emissions testing centres owned by the Bangalore Metropolitan transport Corporation were "defective".

# India publishes Stage IV Regulation for Motorcycles

India has finalised its Bharat Stage IV (BS IV) standards for powered two-wheelers to go into effect on 1 April 2016 for type-approval of new models, and on 1 April 2017 for all models.

The new regulation adopts the Worldwide-harmonized Motorcycle Test Cycle (WMTC) as the mandatory test cycle and tightens the HC+NOx emissions limits compared with the existing BS III standards by some 23%-60%, depending on motorcycle category. India has also harmonized the definition of motorcycle categories with the UNECE definitions used in the Global Technical Regulation No.2. In addition to tailpipe emissions, the new regulation establishes the first evaporative emissions standards for two-wheelers in India and prohibits release of crankcase emissions. It also sets a durability requirement basis of 30 000 km.

Emissions requirements for petrol-engine twowheelers with engine capacity >50 cc and a maximum design speed exceeding 50 km/h are shown in the following table:

		TA=COP norms (g/km)		
		NOx	HC + NOx	
Class	СО		If the evaporative emission complies with 2 g/test	If the evaporative emission complies with 6 g/test
(1)	(2)	(3)	(4)	(5)
Class 1 and Sub-class 2-1	1.403	0.39	0.79	0.59
Sub-class 2-2	1.970	0.34	0.67	0.47
Sub-class 3-1 and Sub-class 3-2	1.970	0.20	0.40	0.20

The standards for petrol vehicles with engine capacity <50 cc and maximum design speed <50 km/h are:

Pollutant	TA=COP norms (g/km)	Deterioration Factor (D.F.)
(1)	(2)	(3)
CO	0.75	1.2
HC + NOx	0.75	1.2

Emissions standards for diesel-powered two-wheelers will be the same as those for 3-wheel vehicles.

The full Regulation is available from <a href="http://egazette.nic.in/WriteReadData/2014/160193.pdf">http://egazette.nic.in/WriteReadData/2014/160193.pdf</a>.

### India appoints Panel on Fuel Efficiency Standards for Commercial Vehicles

India's Petroleum Ministry has set up an eight-member Committee led by Additional Secretary Rajive Kumar to develop a roadmap for fuel efficiency norms for heavy-duty commercial vehicles with the long-term goal of reducing diesel usage and vehicular pollution, according to local media.

The report said the panel has been directed to examine ways to incentivise phasing out old and fuel-inefficient commercial vehicles. It will also examine global norms as well as their effectiveness and suggest suitable replication for Indian conditions. The panel has been asked by the Ministry to define the methodology for



measuring fuel efficiency, and a labelling mechanism as well as finalising the schedule of implementation of fuel consumption standards.

The Committee has representation from the Ministry of Road Transport and Highways, as well as officials from the Department of Heavy Industry, the Bureau of Energy Efficiency (BEE), the Petroleum Conservation Research Association (PCRA) and the Society of Indian Automobile Manufacturers (SIAM).

#### **UNITED NATIONS**

# **UNECE Air Convention Session on Transport Pollution**

During the 52<sup>nd</sup> session of the Working Group on Strategies and Review under the United Nations Economic Commission for Europe (UNECE) Convention on Long-range Transboundary Air Pollution (Air Convention), a special session was held on 2 July 2014 in Geneva to address air pollution from the transport sector.

The meeting was organized in cooperation with the UNECE Transport Division. Delegates exchanged views and experiences, and discussed integrated policymaking options conducive to sustainable transport and environment policymaking.

It was observed that much more stringent emissions limits for air pollutants from road transport have been introduced over the past few decades - with some limits reduced by 98% - while at the same time technical innovations and associated improvements in the fuel-efficiency of vehicles have been encouraged. In spite of these positive changes, however, pressures and other factors, including the increasing demand for road transport, delays in the expected timeframes for vehicle fleet renewal, the availability of cleaner fuels and measures to shift to other cleaner forms of transport, and the gap between real-world emissions from vehicles compared with emissions measured in lab tests, make it necessary to further improve the environmental performance of the transport sector in an aggressive, well-targeted way.

Air pollution policymakers noted the efforts towards reducing harmful air pollutants, such as NOx and PM, undertaken as part of UNECE Inland Transport Committee work, and in particular the recent development of a new test cycle for light vehicles. The Worldwide harmonized Light vehicles Test Procedure (WLTP) is expected to better represent real driving conditions, and thus to improve future projections of air pollution levels and enable the development of more effective measures to address them.

The meeting also raised awareness on the Transport, Health and Environment Pan-European Programme (THE PEP) which provides a platform for sharing best practices with a focus on the integration of transport, health and environment policies to promote environmental sustainability and better health.

Overall, it was noted that many different policies, strategies and measures already exist to reduce human and environmental exposure to air pollution from road transport. These can include regulatory, economic, voluntary and informational measures which are aimed at the shifting from individual car use to public transport and active mobility (walking and cycling). Realizing the importance of such solution-oriented exchanges, UNECE plans to continue to offer a platform for similar events focusing on the reduction of emissions from other sectors.

Presentations from the Air Convention session are at www.unece.org/index.php?id=33280.

# **UN High-Level Advisory Group on Sustainable Transport**

United Nations' Secretary-General Ban Ki-moon announced on 8 August 2014 the creation and membership of a High-level Advisory Group on Sustainable Transport to provide recommendations on sustainable transport actionable at global, national, local and sector levels.

The Advisory Group on Sustainable Transport will be established for a period of 3 years and will work with Governments, transport providers (aviation, marine, ferry, rail, road, and urban public transport), businesses, financial institutions, civil society and other stakeholders, to promote sustainable transport systems and their integration into development strategies and policies, including in climate action.

Olof Persson, Chief Executive Officer of the Volvo Group and Carolina Tohá, Mayor of Santiago, Chile, were appointed as co-Chairs of the new Advisory Group. The list of Panel members is available at <a href="https://www.un.org/News/Press/docs/2014/sga1493.doc.htm">www.un.org/News/Press/docs/2014/sga1493.doc.htm</a>.

This initiative represents one more step by the UN Secretary-General in advancing climate action and in implementing his Five-Year Action Agenda in which the Secretary-General pledged to forge consensus around a post-2015 sustainable development agenda and implement it. The establishment of the Advisory Group is also a concrete response to the call by stakeholders across a broad array of fields for a more strategic approach to transport and infrastructure-related issues.

The aim of the Advisory Group is to promote accelerated implementation of sustainable transport, aligned closely with the objectives of inclusive and equitable growth, social development, protection of the global environment and ecosystems, and addressing climate change. The Advisory Group will provide a global message and recommendations on sustainable



transport, including on innovative policy and multistakeholder partnerships for sustainable transport; launch a "Global Transport Outlook Report" by 2015 to provide analytical support for these recommendations; and help mobilize action and initiatives in support of sustainable transport among key actors, including Member States, development finance institutions, bilateral development partners, transport providers, urban authorities and land-use planners.

The Group will hold its first meeting in the fall of 2014 and is expected to submit a progress report to the UN Secretary-General in the second half of 2015.

#### **GENERAL**

### Japan AIST Developments on PGM Reduction in DOCs

On 12 July 2014 Nikkei Technology, an online technology media from Japan, reported on developments by Japan's National Institute of Advanced Industrial Science and Technology (AIST) on a new catalyst that enables to reduce Platinum Group Metals (PGM) used in Diesel Oxidation Catalysts (DOC).

With the 'surface polyol reduction method', the catalyst is supported by precipitation, not by impregnation. The method uses a phenomenon in which polyol (polyalcohol) reduces ions such as of precious metals to metals. AIST developed a method to precipitate and support nanoparticles compounded of multiple precious metals such as Pt and Pd directly on the surface of a catalyst carrier. The catalyst made with this method has a high heat resistance and according to AIST enables to halve the amount of PGM compared with conventional, impregnated catalysts, while maintaining HC oxidation performance.

AIST plans to test volume production of the catalyst and use it for an actual vehicle on a trial basis in the aim of commercializing the catalyst.

# Maritime Industry Alliance for Sulfur Regulations Enforcement

On 7 July 2014 a coalition of ship owners and operators launched the Trident Alliance that aims at ensuring robust enforcement of the maritime sulfur regulation.

The member company CEO's have each signed a Statement of Commitment, in which they commit to supporting robust and transparent enforcement of sulfur regulations and complying with said regulations.

Members of the Trident Alliance include American Rollon Roll-off Carrier, EUKOR Car Carriers Inc., Höegh Autoliners, J. Lauritzen, Maersk, Rickmers-Linie, Stena, Torvald Klaveness, UECC, Unifeeder, Scorpio, Flinter, and Wallenius Wilhelmsen Logistics. Roger Strevens, Vice-President Environment of Wallenius

Wilhelmsen Logistics has been elected Chairman of the Trident Alliance.

Several companies are in the process of joining. Membership will remain open to all shipping companies that wish to join.

### ExxonMobil launches New 0.1% Sulfur Marine Fuel for ECAS

ExxonMobil has launched a new marine fuel - HDME 50 - designed to comply with the 0.1% sulfur cap to be introduced in Emission Control Areas (ECAs) on 1 January 2015. The company claims the fuel is similar to marine gas oils (MGO) which have lower sulfur content, but also has the higher flashpoint and lower volatility characteristics associated with Heavy Fuel Oils (HFOs).

Wallenius Wilhelmsen Logistics has tested the new fuel and found it to be suitable for use in main and auxiliary engines and marine boilers. Other successful field trials have resulted in 'No Objection Letters' from MAN Diesel & Turbo (MDT) for certain engine types provided MDT's specific type guidelines are followed.

According to the company, HDME 50 has similar properties to HFOs, which usually have to be heated because of their higher viscosity in order to reduce the risk of thermal shock to engine components during fuel switchovers.

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### Air Quality, Sources and Exposure

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### **FORTHCOMING CONFERENCES**

#### 5th International CTI Conference: Emission Challenges

9-10 September 2014, Troy, MI, USA

www.emission-control-systems.com

Focus will be on Greenhouse gases (Regulatory and Technology Approaches). Modern Combustion Processes for reduced/low NOx raw emission, Catalyst Approaches to NOx Reduction, Ammonia based SCR Systems, Advances in SCR Filter Combinations (SCRF), and Alternative Drive Trains.

#### What's Next for Europe's Passenger Car and **Commercial Vehicle Industries?**

10-11 September 2014, Brussels, Belgium

http://megatrendseurope.automotiveworld.com

The 2<sup>nd</sup> Automotive Megatrends Europe conference will discuss the business models, technologies and trends that look set to shape Europe's commercial vehicle and passenger car industries over the next ten years and beyond.

#### **Gaseous Fuels for Road Vehicles**

11 September 2014, London, UK

www.imeche.org/events/S1807

This seminar will examine the application and use of gaseous fuels in vehicles. Delegates will be able to explore the different types of gases that can be used as fuels, and gain an insight into the benefits gaseous fuels have over traditional liquid fuels. What difference can they make to emissions, and CO2 and fuel consumption? How can they be applied to passenger and commercial vehicles?

#### 26th International AVL Conference "Engine & Environment" - Engine 2020: Spark versus **Compression Ignition in a new Environment**

11-12 September 2014, Graz, Austria

www.avl.com/engine-environment-2014

The theme for 2014 is Engine 2020: spark versus compression ignition in a new environment.

### **AVL Emission Measurement Systems Roadshow**

16 September 2014, Stuttgart, Germany 30 September - 1 October 2014, Neuss, Germany www.avl-abgasmesstechnik.de

#### **SAE 2014 Heavy-Duty Diesel Emissions Control** Symposium

17-18 September 2014, Gothenburg, Sweden www.sae.org/events/hddec

Attendees will hear and interact with the most knowledgeable leaders from the global, heavy-duty diesel powertrain industry who best understand the complicated science of the pollutants emitted during engine combustion and how to treat them.

#### **Real Driving Emissions 2014**

17-19 September 2014, Düsseldorf, Germany

www.real-driving-emissions.eu

This conference will review the current status of the introduction of RDE test procedures and its related technologies in the European Union.

#### 20th International Transport and Air Pollution Conference (TAP 2014)

18-19 September 2014, Graz, Austria

www.tapconference.org

The main theme will be energy efficient transport and its implications to air quality. Special focus will be given to emissions measurement and modelling, tunnel and remote sensing measurements, GHG emissions from transport, energy efficient technologies, electric vehicles and alternative fuels, real drive emissions, forecasts, policies and scenarios in transport, urban air quality, non-road, particle number and matter from GDI, non-exhaust PM, primary and secondary aerosols, and source apportionment.

#### Kraftstoffe für die Mobilität von morgen

24-25 September 2014, Braunschweig, Germany www.fuels-ira.de/conference-24-25-09.html

This is the first meeting of the Fuels Joint Research Group (FJRG). While the new research group sees fuel as the most important motor-driven design element, the important issues of the exhaust gas treatment as well as environmental and health effects are also at the centre of research interest.

#### International Conference - Air Quality / Indoor Air & Outdoor Air

24-25 September 2014, Lyon, France

www.atmosfair.fr

The conference will discuss regulation and standardization; measurements, modelling, and methodologies; pollution, emissions and risks; air pollution control and source reduction. There will also be a roundtable on nanoparticles.

### 9th IAV Conference: Gas-Powered Vehicles

29-30 September 2014, Potsdam, Germany www.iav.com/en/events/iav-tagung/9th-iav-conference-gaspowered-vehicles

The conference will address developments in gaseous-fuel drives with a focus on the engine. engine control system, hybridization, system components, bodywork, exhaust and safety engineering; OEM strategies for gas-powered vehicles; market development and the political framework; and production and distribution of gaseous fuels.



### 23<sup>rd</sup> Aachen Colloquium Automobile and Engine Technology 2014

6-8 October 2014, Aachen, Germany

www.aachener-kolloquium.de

The congress provides a wide range of technical presentations addressing current challenges of the vehicle and powertrain industry. Programme-related test vehicles, prototypes and aggregates from participating companies and institutions are presented on the ika test track.

### Critical Issues Workshop CNG & LNG Safety: Perception & Reality

8-9 October 2014, Brussels, Belgium

www.CNGandLNGsafety.org

### SAE Diesel Engine Technology Engineering Academy

13-17 October 2014, Coventry, UK

http://training.sae.org/academies/acad03/?PC=140630NWHD

This Academy covers the diesel engine engineering principles and practices necessary to effectively understand a modern diesel engine. Types of engines addressed include naturally aspirated, turbocharged, pre-chamber, open chamber, light- and heavy-duty.

#### **Green Port Congress 2014**

15-17 October 2014, Barcelona, Spain

www.greenport.com/congress/home

The emphasis of the congress will be on highlighting the innovations in equipment and technology that will allow port users to adhere to policy, whilst illustrating practical solutions through case studies from the global logistics chain. One session will address air quality (LNG, shore side electricity, port projects targeting air quality).

#### **COPERT - SIBYL Training Workshop**

15-17 October 2014, Thessaloniki, Greece

www.emisia.com/newsletter\_2014/September\_2014/

The workshop organized by EMISIA will cover COPERT, the software for calculating air pollutant and greenhouse gas emissions from road transport; SIBYL, a software for vehicle stock projection and evaluation of different road transport scenarios; the updated vehicle fleet database EMISIA maintains for all EU Member States; and a new software for preparation of emissions inventories covering all emissions sources.

### SAE 2014 International Powertrain, Fuels & Lubricants Meeting

20-23 October 2014, Birmingham, UK

www.sae.org/events/pfl/2014

The conference will discuss combustion, hybrid powertrains, engine downsizing, engine control, fuels and fuel efficiency, lubricants, advanced fuel delivery, and emissions reduction.

#### **FEV Conference: Diesel Powertrains 3.0**

28-29 October 2014, Montabaur, Germany

www.fev.com/events/fev-conferences/news-article/article/diesel-powertrains-30.html

The 1<sup>st</sup> conference on "Diesel Powertrains 3.0" will define the platform that will allow experts to bridge the transition of modern Diesel engines into the next level of overall performance for the upcoming decade.

### 7th Integer Emissions Summit USA 2014

28-30 October 2014, Chicago, USA

www.integer-research.com/dec-usa-2014

The conference will examine the latest legislation, optimum diesel emissions reduction technologies and strategies for Heavy-duty commercial vehicles, Off-highway vehicles, light-duty vehicles and passenger cars, marine vessels, natural gas vehicles, and Diesel Exhaust Fluid.

#### **Ricardo Motorcycle Conference**

3 November 2014, Milan, Italy

www.motorcycleconference.com

The conference will focus on future development trends for global two wheelers, with three key sections: market drivers, powertrain technologies and vehicle technologies.

### **FEV International Conference: Advanced Fuels for Sustainable Mobility**

4-5 November 2014, Nürburg, Germany

www.fev.com/events/fev-conferences/news-article/article/advanced-fuels-for-sustainable-mobillity.html

The conference will discuss advanced fuels developments for both heavy-duty and light-duty applications.

### EUCAR: 20 years of collaborative automotive R&I. Driving the next 20...

5 November 2014, Brussels, Belgium

The Conference and Exhibition will look back over the last 20 years of research collaboration, look forward to the next 20 years and highlight the value of the European research framework programmes to automotive innovation, with senior speakers from industry, the research community and the European Commission.

### 12. FAD-Conference "Challenge - Exhaust Aftertreatment for Diesel Engines"

5-6 November 2014 Dresden, Germany

www.fad-diesel.de/Conference\_2014

Presentations at the 12<sup>th</sup> FAD Conference will make the participants familiar with current development trends, solution approaches and research outcomes in the field of exhaust aftertreatment for diesel engines.



#### **Homologation Symposium**

17-18 November 2014, Munich, Germany

www.tuev-sued.de/academy/conference-management/automobile-rail/homologation

The conference organized by TÜV-Süd will address new CoC documents, German single type approval according to Directive 2007/46/EC, homologation according to international regulations (GOST, CCC, INMETRO, Trias), cooperation with local type approval authorities — single type approvals, data management/CoC, small series, modifications from the perspective from German inspection stations, emissions/WLTP/PEMS, and workshops for passenger cars / trucks and agricultural vehicles.

### 9<sup>th</sup> International MTZ Conference: Heavy-Duty, Onand Off-Highway Engines

18-19 November 2014, Saarbrücken, Germany

www.atzlive.de/index.php;do=show/sid=nv9kaj4hhtsjhb1u0o1pr0vsr 3/site=atz/lng=en/alloc=333/id=735

This event will focus on new powertrains for commercial vehicles, off-highway, marine and stationary applications, complete system optimization, solutions for emissions reduction and the optimization of engine mechanics and fuel consumption. The conference will examine current and future developments in heavy-duty diesel and gas engines for various applications.

### SAE/JSAE 2014 Small Engine Technology Conference

18-20 November 2014, Pisa, Italy

www.sae.org/events/setc

The conference will discuss the state of the economy and the status of emissions regulations, alternative powertrains and the effects on the environment. The vehicle product ranges from ATVs, scooters and motorcycles to portable power generators, lawnmowers and hand tools.

#### 7th China Off-Highway Vehicle Summit 2014

19-21 November 2014, Shanghai, China

www.duxes-events.com/ohv7

The summit will discuss emissions standards, policies and regulations, market climate, technical development trends, and aftermarket.

### Pollution Atmosphérique Longue Distance: évaluation, risques, gestion et décision

20-21 November 2014, Lille, France

Info will be at www.primequal.fr

This conference sponsored by the French Ministry of Ecology and the French agency for environment and energy management (Ademe) will address air pollution processes, field experience, ecosystem and health effects, economic and political consequences.

### 3<sup>rd</sup> China International Diesel Engine Summit 2014

20-21 November 2014, Beijing, China

www.borscon-de3.com/de3/en

The event will cover worldwide emissions regulations for on-road and non-road applications, OEMs technical roadmaps, latest Diesel engine technology, engine testing, SCR, hybrids, dual-fuel engines, fuel economy, etc.

#### SIA Powertrain / Trucks & Off-Road

25 November 2014, Bourg-en-Bresse, France

www.sia.fr/evenement\_detail\_sia\_powertrain\_trucks\_off\_1212.htm

The conference will provide feedback on Euro VI solutions and prepare the next evolutions of the powertrains for fuel consumption improvement and challenges on the environmental regulations for onroad and off-road applications.

### Conférence "Mobilité, urbanisme et qualité de l'air: agir sur les territoires !"

26 November 2014, Paris, France

www.airpl.org/airpl/agenda/conference mobilite urbanisme et qua lite de l air agir sur les territoires a paris

Conference organized by ADEME on "Mobility, Planning and Air Quality". The programme for this conference: issues related to air quality; new mobility, urban planning and air quality; testimonials of communities and researchers on operational projects with a climate-energy air-entry section on the themes of mobility and urban planning; and support of ADEME to the territories.

#### **Exhaust Technology Seminar**

4-5 December 2014, Stuttgart, Germany

http://cti.euroforum.de/en/events/exhaust\_technology\_dezember20\_14

2-days intensive CTI seminar.

#### Air Quality in Europe - New Challenges

9-10 December 2014, London, UK

http://aamg-rsc.org/meetings/monitoring-ambient-air-2014

The conference, organized by the Automation and Analytical Management Group (AAMG) – a special interest group of the Analytical Division of the Royal Society of Chemistry (RSC), will address regulation of emissions, understanding of air pollution sources and mechanisms involved in air quality.

#### SAE 2014 Light Duty Emissions Control Symposium

9-10 December 2014, Troy, MI, USA

www.sae.org/events/lde

The Symposium will discuss the recently announced EPA Tier 3 regulations beginning in 2017, diesel and gasoline particulate matter control, CAFE standards, and  $CO_2$  and criteria emission regulations.



### 13<sup>th</sup> International CTI Conference: Exhaust Systems

19-21 January 2015, Stuttgart, Germany

http://cti.euroforum.de/en/events/exhaust\_systems

This seminar conveys the basics of the currently most important technical concepts of exhaust gas technology using several practical examples.

#### **Exhaust Technology Seminar**

28-29 January 2015, Braunschweig, Germany <a href="http://cti.euroforum.de/en/events/exhaust\_technology\_januar2014">http://cti.euroforum.de/en/events/exhaust\_technology\_januar2014</a> 2-days intensive CTI seminar.

#### Kolloquium Luftqualität an Straßen 2015

4-5 March 2015, Bergisch Gladbach, Germany

www.bast.de/DE/Service/Termine/2015/luft-2015.html

Forum on current research activities in the field of air quality along transport routes as well as traffic-related measures in the wake of air pollution control plans.

### Deadline for abstract: 19 September 2014

#### 5<sup>th</sup> Integer Emissions Summit India 2015

25-26 March 2015, New Delhi, India

www.integer-research.com/conferences/ies-india-2015/

The conference will explore the challenges and opportunities, and examine successful diesel emissions control strategies, for the Indian on-road and non-road mobile machinery (NRMM) sectors.

#### **SAE 2015 World Congress**

21-23 April 2015, Detroit, USA

www.sae.org/congress

#### 36th International Vienna Motor Symposium

7-8 May 2015, Vienna, Austria

www.xn--vk-eka.at/index\_en.htm

The symposium will address latest results in worldwide engine and powertrain development, future legislation, fuels and components, drive train electrification, hybrid technology, CO<sub>2</sub> reduction, and exhaust emissions control.

### Deadline for abstract: 30 September 2014

### 8<sup>th</sup> AVL International Commercial Powertrain Conference

20-21 May 2015, Graz, Austria

www.avl.com/icpc

Main Topics for the Technical Sessions will be truck and bus (hybrid powertrain technologies, LNG / CNG), agricultural tractors (potential of electrically driven implements, alternative fuels), and construction machinery (modern transmission technologies, hybridisation).

#### 15th European Automotive Congress

8-10 June 2015, Györ, Hungary

http://eaec2015.org

Topics include safety, emissions, environment, energy, design, quality and automotive logistics.

Deadline for abstracts: 15 October 2014

### 2015 JSAE/SAE Powertrains, Fuels and Lubricants International Meeting

1-4 September 2015, Kyoto, Japan http://pfl2015.jp

Deadline for abstracts: 1 October 2014

#### **FISITA 2016 World Automotive Congress**

26-30 September 2016, Busan, South Korea

Info will be at <a href="https://www.fisita2016.com">www.fisita2016.com</a>

Deadline for abstracts: 30 September 2015