

TRAFFIC

Odd even Olympic ban assessed

Short term traffic restrictions used to improve air quality for the Beijing Olympics have been assessed for their effect on air pollution.

China introduced an odd/even number plate ban for the Olympics intended to halve vehicle traffic in the Beijing urban area.

Traffic flows were gathered from traffic counters for several days before and after the ban,

and compared to air quality monitoring results for various pollutants on radial and ring roads.

During the operation of the traffic restriction scheme, daily mean carbon monoxide levels dropped by over 35%, PM₁₀ levels by about 40% and over 30% for nitrogen dioxide and about 35% for ozone. Hourly peak concentrations dropped also.

The restrictions allowed the city to meet objective levels, and pollution drops were also seen in downwind areas of the city.

Traffic-related air pollution modelling during the 2008 Beijing Olympic Games: the effects of an odd-even day traffic restriction scheme, Hao Cai et al, *Science of the Total Environment* Vol. 409 (2011) pp1935-1948.

Madrid street washing secures reductions

Sweeping of roads in Madrid is having some success in cutting PM₁₀ levels.

Spanish researchers monitored road sweeping and washing of a heavily traffic road in Madrid. PM₁₀ daily levels were 2-15% higher when there was no washing, however the reduction was only significant during the morning

period.

Researchers were able to estimate that the mass contribution from road dust sources was 2µg/m³ lower during days that street washing representing a reduction in 15% of its mass contribution on days that the road was unwashed and unswept.

Researchers said the findings

allowed them to conclude that the washing provided a short lived beneficial effect.

Road dust contribution to PM levels – evaluation of the effectiveness of street washing activities by means of positive matrix factorisation, Angeliki Karanasiou et al, *Atmospheric Environment* Vol. 45 (2011) pp2193-2201.

SCIENCE SHORTS

One year gain

Dutch researchers have tried to put figures on the benefit of improved urban background pollution levels.

Over the period 1985 to 2008, PM₁₀ improvements of 18µg/m³ and elemental carbon reductions of 2µg/m³ led to an average gain in life years equivalent to 13 and 12 months respectively.

Researchers point out that the similar health impacts for PM₁₀ and elemental carbon suggest that the reduction of combustion aerosol was important for the reduction in health impact of PM₁₀.

Air quality and the health impact of PM₁₀ and EC in the city of Rotterdam, The Netherlands in 1985-2008, Menno Keuken et al, *Atmospheric Environment*, Vol. 45 (2011) pp5294-5301.

Appointment of Air Quality Expert Group Members

The Air Quality Expert Group (AQEG) is a Defra Expert Committee providing independent scientific advice on air quality to Ministers and Defra's Chief Scientific Adviser.

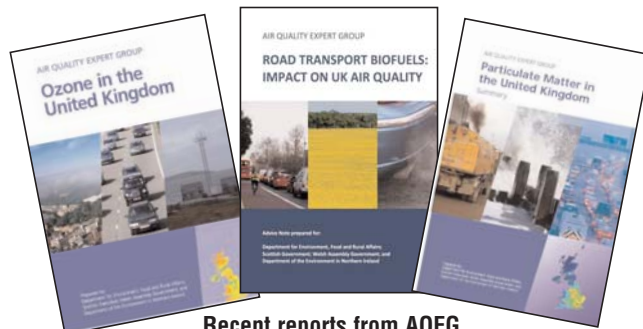
AQEG advises on levels, sources and characteristics of air pollutants in the UK; provides analysis on trends in pollutant concentrations; assesses current and future ambient concentrations of air pollutants in the UK; and suggests potential priority areas for future research aimed at providing a better understanding of the issues that need to be addressed in setting air quality objectives.

Defra and the Devolved Administrations are recruiting for 10 new members to join AQEG from 1st July 2012. Members are required to:

- Contribute scientific analyses for group discussion;
- Analyse, interpret and synthesise evidence on air quality;
- Provide judgements on quality and relevance;
- Suggest priority areas for future work;
- Provide advice on current and future levels, trends, sources and characteristics of air pollutants in the UK;
- Draft scientific reports in collaboration with other Committee members.

The expert members of AQEG will be of significant national standing and reputation within the field of air quality or related areas, and will have a strong working knowledge of AQEG's work and its previous outputs. They will need to have proven ability to put forward their views and rigorously challenge others.

The workload will vary, but on average AQEG members attend approximately 4-6 meetings per year, and work no more than 20 days per year.



Recent reports from AQEG

Further information and application forms are available from: **Dr Clare Bayley, clare.bayley@defra.gsi.gov.uk or by telephone on 020 7238 3059**

AQEG website: www.defra.gov.uk/environment/quality/air/air-quality/committees/aqeg

Closing date: 12 noon, Monday 21st November 2011.

Defra is committed to improving the diversity of their public bodies and welcomes applications irrespective of race, ethnic or national origin, sex, marital status, disability, sexual orientation, religion or belief, age or gender re-assignment. We would particularly welcome interest under-represented groups: for example women; members from Black and Minority Ethnic communities; and disabled people.

