

Pollution Control Team

The Borough Air **Quality Bulletin**



Autumn 2001

A Local Agenda 21/Environment Group Initiative

Government proposes new air quality objectives

to drive the local air quality England, the first time such variations have been proposed for any UK with existing measures". environment quality standard.

objectives for 8 pollutants to be met by 2005. Ealing Council is striving to meet these objectives and is in the process of developing an Air Quality Action Plan which will set out the council's policies for doing so. Last and carbon monoxide, and for the first time proposed an objective for polycyclic aromatic hydrocarbons (PAHs), which are mainly produced by domestic heating, traffic and certain industrial processes. These are all to be met by 2010.

The Government has attracted criticism by proposing a weaker set of particle objectives for London than for the rest of the UK. In London, the proposed annual mean objective is 23-25 μ g/m3 and the 24 hour mean objective is 50 µg/m3 with 10-14 exceedances allowed annually. This

he Government has proposed a compares with the England and Wales raft of new air quality objectives objectives of 20 μ g/m3 for the annual mean and 50 μ g/m3 with just 7 management (LAQM) regime forward exceedances for the 24 hour mean. The over the next decade. It has sparked National Clean Air Society slammed the controversy by putting forward a less proposals to treat London differently stringent objective for particle stating that "Targets should be set in order pollution in London than elsewhere in to drive action, not adjusted for problematic areas so that they can be met

The Government defended the proposals The UK air quality strategy set saying "Air pollution levels in London are such that a target that is challenging for London would be pretty straight forward for the rest of the country....and one that is challenging for the rest of the country would frankly be impossible for London". They also pointed to proposals for a long month the Government published term annual mean of 20 µg/m3 for proposals for updating the strategy. It London to be met by 2015. "We're not has put forward new objectives for letting London off," they insisted. "This is three pollutants - particles, benzene a very, very demanding set of measures."

> We aim to keep readers informed regarding air quality management in Ealing and to bring you up to date on general air quality issues. If you have any comments on how to improve this bulletin or if there are any topics you would like to see included, then please get in touch with the Editor.

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Ealing's web site again rated one of the best

Ealing Council's Pollution Control web site has been rated amongst the best in the country by a leading environmental magazine. *Air Quality Management* visited local authority web sites that displayed air quality information and ranked them according to the quality of the site and the ease of finding it. Ealing came seventh overall out of 129 local authorities that include air quality on their web site. A further 300 other local authorities either didn't have any air quality information or it couldn't be found. Ealing's was also one of four sites commended for being easiest to find. Information on air quality in Ealing is updated daily and the site also contains information about the other activities in which Pollution Control is involved.

Mayor releases draft Air Quality Strategy

The Mayor's draft Air Quality Strategy has finally been published for public consultation and your views are invited. The strategy includes a comprehensive set of policies and proposals aimed at improving London's air quality. Copies of the Draft Strategy and a summary document are available form <u>www.london.gov.uk</u> or by calling 020 7983 4100. A questionnaire is included with the summary document. Responses must be received by 14 December 2001.

Air Quality Action Plan Update

Work on Ealing's Stage 4 review and assessment of air quality report and Air Quality Action Plan is gathering pace with the recent publication of important guidance by the National Society for Clean Air (NSCA) and the release of the long overdue London emissions inventory data from the Greater London Authority (GLA) and vehicle emission factors by the Department for Environment, Food and Rural Affairs (DEFRA).

The NSCA guidance 'Air Quality: Planning for action' is intended to help local authorities with the development of air quality action plans and local air quality strategies. It focuses on the process for developing action plans and strategies and offers advice on ways to overcome the problems which will be encountered along the way.

The London Emissions Inventory data (promised since January) identifies all the significant sources of air pollutants, the geographical distribution of these sources and the amounts of each pollutant released in the London area. It will, for example, give the proportion of a particular pollutant coming from road traffic compared with that from industrial plants. The vehicle emissions factors (promised for over a year) will be used to assess vehicle emissions from future traffic forecasts and are vital to assessing compliance with the 2004/5 air quality objectives. Both the Stage 4 report and draft Action Plan will be released for consultation before December 2001.

Air Quality on the Internet

Here is a selection of air quality sites you could try if you have access to the Internet:-

- Ealing Council's Pollution Control Team <u>www.ealing.gov.uk/pollcon</u>
- Department for Environment, Food and Rural Areas
 - www.environment.defra.gov.uk
- National Environmental Technology Centre <u>www.aeat.co.uk/netcen/airqual/welcome.html</u>
- National Society of Clean Air and Environmental
 Protection
 - www.nsca.org.uk
- The Air Quality Management Site
 <u>www.air-quality-management.co.uk</u>
- Atmospheric Research & Information Centre (at Manchester Metropolitan University) www.doc.mmu.ac.uk/aric/eae
- South East Institute of Public Health <u>www.seiph.umds.ac.uk/EnvHealth/Ehg.htm</u> Environmental Research Group homepage <u>www-seiph.umds.ac.uk/graph-asp/hourly.asp</u> London Air Quality Network <u>www.seiph.umds.ac.uk/graph-asp/getdaily.asp</u> Archive of previous daily air quality bulletins
 Eriondo of the Forth
- Friends of the Earth www.foe.co.uk
- Local Agenda 21 Pollution and Public Health Project Group www.LA21.org
- OMNI Ealing Council's new interactive website. www.seiph.umds.ac.uk/o2/ealing/index.htm

Ealing Borough Air Quality Bulletin

Research Latest

Tube particles remain too high

Research from University College London has shown that particle concentrations on the London Underground are up to 20 times worse than on streets above ground. High concentrations of particules can affect passengers, but there are more fears for drivers and workers who spend long periods of time under ground. If the concentrations are ruled dangerous on occupational grounds, then tube managers must reduce their exposure, perhaps through installing filtration equipment in drivers' cabs. Analysis of the particulates showed the presence of iron, silicon, calcium and aluminium suggesting the sources to be wearing of the steel track, wheels and brake linings. Carbon based particles could be generated from wear of the contacts used in electric motors and the electrified rails. 8% of particles were shown to come from quartz, probably from the quartz based brake blocks. Quartz silica is known to be particularly hazardous to the lungs.

Air Quality Management. July 2001. Issue number 67.

Delhi researchers study pollution

Indian researchers have attempted to assess the effects of ambient air pollution on day to day breathing difficulties in Delhi. The research focused on 4000 residents living near air pollution monitoring equipment that had provided data for the past 10 years. The researchers concluded that "Whilst prevalence rates of bronchial asthma, chronic obstructive pulmonary disease and chronic bronchitis among residents was not significantly different, lung function of non smokers was consistently and significantly better among both male and female residents living in areas of lower pollution.

Air Quality Management. July 2001. Issue number 67.

City children susceptible to smoke

Research from the Netherlands has established that urban children react more quickly to changes to pollution than similar kids in rural areas. Looking at two groups, one each from an urban (Utrecht) and suburban (Bilthoven) area. Utrecht suffers between two and eight times the levels of black smoke, nitrogen dioxide and carbon dioxide than Bilthoven. Results included the already well known conclusion that higher pollution in urban areas mean greater exposure for the children, with the well known health effects. However, results also showed that kids in urban areas reacted far more to the same increase in air pollution than those in suburban areas. For instance when all three pollutants increased, urban children's lung function worsened by 3-9% while those in suburban areas were unaffected despite the same rise in pollution. Researchers concluded: "Apparently children who live in urban environments and who are exposed regularly to air pollution have a more profound response to episodes of air pollution than do those children who live in suburban environments".

Air Quality Management. August 2001. Issue number 68.

School drop outs clue to pollution?

Nevada researchers have found a link between school absenteeism and air pollution levels. The effect was strongest with carbon monoxide and ozone concentrations, with no effect for particle concentrations. The researchers analysed attendance records at 57 elementary schools in northern Nevada between 1996 and 1998. 28,000 students were involved with an average absence rate of 5%. After adjusting for the effects of weather and other variables, researchers could conclude that for every 1 ppm and 50 ppb increase in CO and ozone, the absence rate would increase by 3.8% and 13% respectively.

Air Quality Management. September 2001. Issue number 69.

Heart effects of particles

German researchers, using data from a well documented air pollution episode that took place in January 1985, have analysed the effect of particles on heart function. This new analysis of hospital patients admitted for heart problems, showed that the increase in particle concentrations thickened the blood and increased heart rate. It showed that the increased blood pressure associated with the event, was sufficient to push many into the hypertensive range such that they were susceptible to heart attacks. Air Quality Management. August 2001. Issue number 68.

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Air Pollution Results July to September 2001





Ealing Borough experienced a number of MODERATE pollution incidents over the summer. Warm, fine, settled weather led to MODERATE ozone for a number of days either side of the 5th and 28th July. These were typical photochemical events with sunlight reacting with certain pollutants, mainly from car exhausts, to form among other things ground-level ozone. The fine weather also led to incidences of MODERATE particulate levels, although the event that occurred around the 23rd August resulted from the humid, overcast conditions trapping the pollution close to the ground.

Other pollutants remained LOW for the three month period.

Daily Forecasts

A daily air pollution forecast is published every day on the Pollution Control website, as well as recent air pollution levels. You will also find details of Ealing's Air Quality Review and Assessment, the results of Ealings' public consultation on air pollution and other related topics, including back issues of the Air Quality Bulletin.

Ozone (O3) Ozone (CO) Carbon monoxide (CO)

23-Sep

0-Sen

Levels measured at Ealing (O3) and Acton (CO) Town Halls

Pollution Bandings

		low	moderate	high	v.high
oncentration (ppb)	O ₃ CO	<50 <10	50-89 10-14	80-179 15-19	>180 >20
8	NO_2	<150	150-299	300-399	>400
urly average C	PM ₁₀	<50	50-74	75-99	>100
	Measured as:				
ę	Ozone		(O ₃)	hourly mean	
aximum	Carbon monoxide		(CO)	running 8 hour mean hourly mean	
	Nitrogen dioxide		(NO_2)		
Σ	Particulates		(\mathbf{PM}_{10})	running 24 hour mean	
			107	8	

(qaa)

verage O3 con

Maximum hourly

20

01-Jul

5-Jul

22-Jul

5-Auc