

IN THIS ISSUE

<i>New planning guidance for pollution control.....</i>	<i>1</i>
<i>Cigarettes 10 times more toxic than cars.....</i>	<i>1</i>
<i>Air pollution link to heart disease.....</i>	<i>2</i>
<i>And traffic jams can kill.....</i>	<i>2</i>
<i>Air Quality on the Internet.....</i>	<i>2</i>
<i>Air Pollution Results July to Sept 2004.....</i>	<i>3/4</i>

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www.ealing.gov.uk/services/pollution+control/

New Planning Guidance for Pollution Control

New guidance has been issued by the Government, which sets out how matters of pollution control should be taken into account when considering new developments. Planning Policy Statement 23 (PPS23) replaces the old PPG 23 with the aim of facilitating planning for good quality, sustainable development that takes appropriate account of air quality issues. PPS 23 reiterates that air quality is a material consideration and highlights that the precautionary principle should be invoked where there is good reason to believe that harmful effects may occur to human, animal or plant health, or to the environment. Local planning authorities will need to have regard to the policies in PPS 23 in preparing their local development documents and in considering individual proposals for development.

Cigarettes 10 times more toxic than cars

An unusual experiment in Italy has highlighted the dangers of passive smoking by showing that tobacco smoke produces far more fine particles than

diesel exhausts. Researchers carried out a controlled experiment in a northern Italian town that was known to have low levels of ambient particulate pollution. A turbo diesel 2 litre engine, fuelled with low sulphur fuel, was started and left idling for 30 minutes in a private garage in the town, with the doors closed. The doors were then left open for four hours to ventilate the place. They subsequently lit up three filter cigarettes one after another, and left them smouldering for a further 30 minutes. A portable air quality analyser took readings every two minutes while all this was taking place. Combined particulate levels in the first hour after the engine had been started measured 88 ug/m³. In comparison, those recorded in the first hour after the cigarettes had been lit measured 830 ug/m³, nearly 10 times greater. The diesel engine exhaust also doubled the background particulate matter levels found outdoors at its peak. While the environmental tobacco smoke particulate matter reached levels 15 times those measured outdoors. Similar research from Sweden has found that toxic substances measured in the air of a smoky room were 120 times higher than that found in a smoke-free room.

Anon. 2004. Smoking more toxic than car fumes.
BBC. 24th August 2004.

<http://news.bbc.co.uk/1/hi/health/3590578.stm>

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.

Air pollution link to heart disease

Particulate pollution has again been linked with heart disease after new research from the University of Southern California suggests that pollution causes the narrowing of arteries, just as smoking does. The study looked at nearly 800 people over the age of 40, living in the Los Angeles area. Ultrasound was used to measure the thickness of the inner lining of the carotid artery in the neck of each of the subjects. The researchers also looked at the levels of PM_{2.5} (ultra fine particles) in the areas where these people lived. After accounting for various factors such as age, lifestyle, social class and physiology, they found that for every 10 µg/m³ (micrograms per cubic metre) increase in PM_{2.5}, artery thickness increased by between 3.9% and 4.3%. The strongest link was seen in women over the age of 60 who showed a 15.7% increase in artery thickness. The researchers have suggested that the tiny particles are inhaled into the smallest airways. This intrusion triggers the body to produce oxidants, which in turn triggers inflammatory reactions in both the respiratory tract and blood vessels, and so leading to a hardening of the arteries, heart disease and strokes. The author of the study, Professor Nino Kuenzli, was quoted as saying "Our study found that air pollution may contribute to cardiovascular problems at a very early stage, similar to smoking, and enhances arteriosclerosis, which is the underlying disease process of cardiovascular disease". He also pointed out that there were enormous public health implications if the theory was correct and called for more research into the effects of air pollution.

Meikle J. 2004. Air Pollution link to heart disease. The Guardian. 8th November 2004.

http://www.guardian.co.uk/uk_news/story/0,,1345808,00.html

Anon. 2004. Pollution link to heart disease' BBC. 8th November 2004.

<http://news.bbc.co.uk/1/hi/health/3991633.stm>

And traffic jams can kill

A German study has found that people caught in a traffic jam are three times more likely to suffer a heart attack within the hour than those not stuck in a traffic jam. The study was based on interviews with 691 volunteers who survived a heart attack long enough to fill in a diary of their activities during the four days leading up to the event. They found that nearly one in twelve of the heart attacks was linked to traffic, with women and the over 60s particularly at risk. People stuck in cars had a 2.6 times greater risk of having a

heart attack. For people on public transport the risk was 3.1 times higher, and for those who cycled, the risk was 3.9 times higher. Because people on public transport seemed to be at risk, the researchers believe that stress is unlikely to be the only factor. The researchers note that "given our current knowledge, it is impossible to determine the relative contribution of risk factors such as stress and traffic-related air pollution". Professor Jeremy Pearson of the British Heart Foundation said of the study "Since these patients had more than double the risk if they were in traffic shortly before their heart attack - regardless of whether they were in cars, public transport or on a bicycle - increased air pollution was the most likely trigger". He went on, "Although it is difficult to rule out other factors such as stress, this study certainly strengthens the arguments in favour of stronger measures to reduce pollution in our cities."

Anon. 2004. Heavy traffic bad for your heart. BBC. 21st October 2004.
<http://news.bbc.co.uk/1/hi/health/3761012.stm>

Air Quality on the Internet

Here is a selection of air quality sites on the Internet:-

Ealing Council's Pollution Control Team

<http://www.ealing.gov.uk/services/pollution+control/air+quality+.asp>

Ealing Air - All the monitoring in one place

<http://www.erg.kcl.ac.uk/ealing/htm/aqhome.htm>

OMNI - Ealing Council's interactive website.

<http://www.erg.kcl.ac.uk/ealing/htm/omni.htm>

Department for Environment, Food and Rural Areas

<http://www.defra.gov.uk/environment/index.htm>

National Society of Clean Air and Environmental Protection <http://www.nsca.org.uk>

The Air Quality Management Site

<http://www.air-quality-management.co.uk/>

Atmospheric Research & Information Centre (at Manchester Metropolitan University)

<http://www.docm.mmu.ac.uk/aric/eae/>

Friends of the Earth

www.foe.co.uk

Local Agenda 21 Pollution and Public Health Project Group

www.LA21.org

Environmental Research Group - Kings College London.
London Air Quality Network.

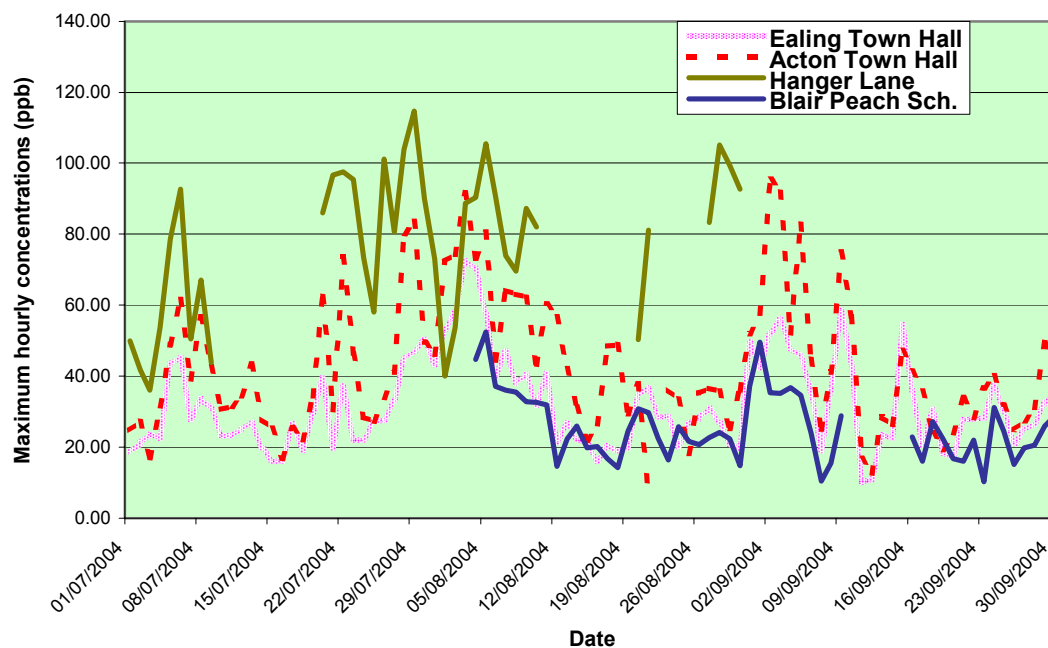
<http://www.londonair.org.uk/london/asp/home.asp>

The UK National Air Quality Information Archive

<http://www.airquality.co.uk/archive/index.php>

Air Pollution Results July to Sept 2004

Nitrogen dioxide (NO₂) levels measured in Ealing



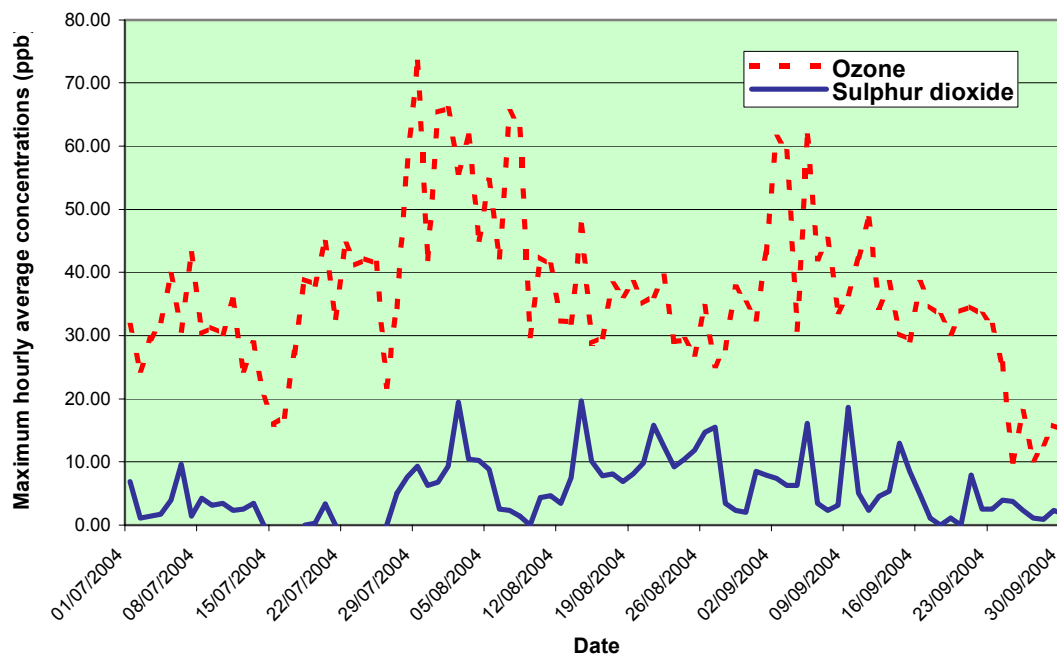
In terms of air quality, 2004 is proving a much better year so far than last. This Summer witnessed a few pollution episodes, but nothing atypical for the time of year. Warm, sunny conditions, and South Easterly winds bringing pollutants in from the continent, allowed pollution to build up on a few occasions, notably around the end of July, beginning of August. Photochemical activity allowed MODERATE Ozone away from busy roads, while calm conditions gave MODERATE PM₁₀ levels close to congested roads.

Other pollutant levels remained LOW for the six-month period.

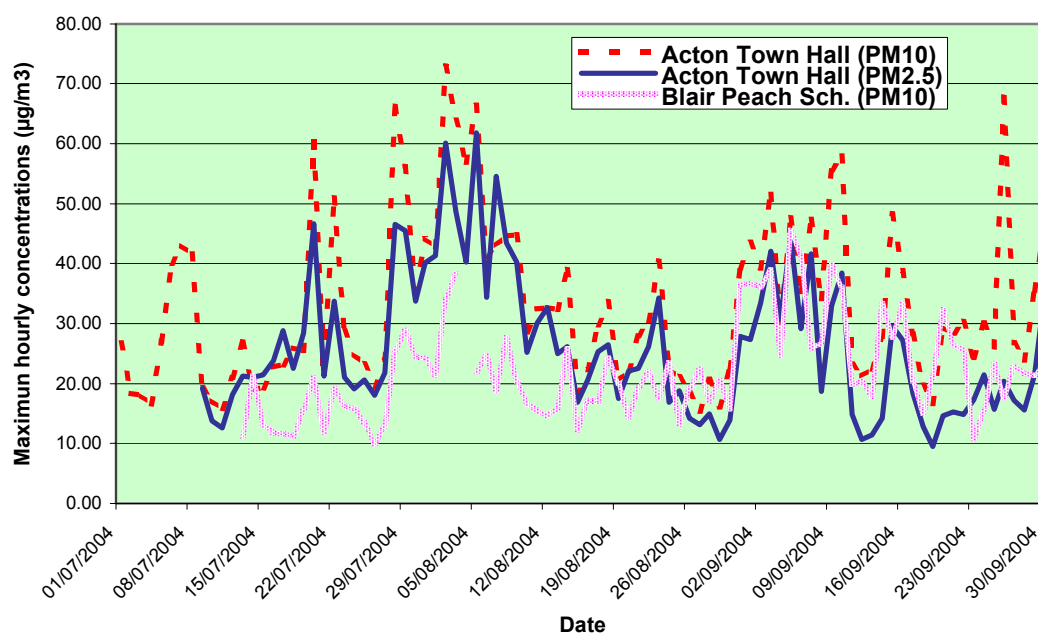
Pollution Bandings

	low	moderate	high	v.high	Measured as:		
O ₃	<50	50-89	80-179	>180	Ozone	(O ₃)	hourly mean
SO ₂	<100	100-199	200-399	>400	Sulphur dioxide	(SO ₂)	15 minute averages
NO ₂	<150	150-299	300-399	>400	Nitrogen dioxide	(NO ₂)	hourly mean
PM ₁₀	<50	50-74	75-99	>100	Particulates	(PM ₁₀)	running 24 hour mean

Levels at Ealing (O3) and Acton (SO2) Town Halls



Particulate concentrations measured in Ealing



Daily Forecasts

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