

Defra Update

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Defra

Forecasting Seminar – 16th May 2007

Outline

- **International level**
 - New AQ Directive proposal
 - UK context – potential Network changes
 - Daughter Directive reporting
 - 4th Daughter Directive
 - Other international work
- **National level**
 - Review of the Air Quality Strategy
 - Expert Groups
- **Local Air Quality Management**
 - Air Quality Grants
 - LAQM
 - Helplines

International policies

EU Thematic Strategy on Air Quality was published 21st September 2005

- Commission's long-term ambitions on air quality

New AQ Directive proposal

- available on CAFÉ website
<http://europa.eu.int/comm/environment/air/cafe/index.htm>
- Co-decision procedure with Council and European Parliament
 - Council – agreed a 'General Approach'
 - EP – First Reading in September
 - Commission rejected all of EP suggested amendments
 - Environment Council – March 07 – reached Common Position
 - Directive is now being translated
 - European Parliament - second reading sometime Autumn 07
 - Directive likely mid 2008

International: New AQ Directive proposal

- Implementation date – 2008??
- Merges and reviews - Framework, DD1, DD2 & DD3 Directives and Exchange of Information Decision
- Text on NO₂, SO₂, CO, benzene and O₃ remain similar to DD1, 2 & 3
- 3-5 year extension to compliance deadlines in affected zones provided that strict criteria met and plans to move towards compliance put in place
- Indications of where limit values apply
 - Not in any locations within areas where members of the public do not have access and there is no fixed habitation
 - Not on the carriageway of roads or on central reservations except where normally pedestrian access to central reservation
- Macro & micro-scale siting criteria also apply to modelling

International: New AQ Directive proposal

PM_{2.5}:

- new target value = 25 µgm⁻³; 1 January 2010 - 31 December 2014;
 - new limit value = 25 µgm⁻³; 1 January 2015 onwards
 - non-mandatory 'Exposure Reduction Target' at urban background of 20% on 2010 concentrations by 2020
 - Reference concentrations – 3 year average of 2008-2010 & 2018-2020
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- Urban background monitoring where > 100,000 population
 - Monitoring in place by 1 January 2008
 - Requirement to monitor SO₄, NO₃, Na, K, NH₄, Ca, Cl, Mg, EC/OC in PM_{2.5} at rural background

International: New AQ Directive proposal

Other pollutants:

- 2:1 ratio of urban background to traffic sites (Annex V)
- recommended list of ozone precursors retained

Reference Methods = new CEN standards (Annex VI)

- Type approval – mutual recognition of reports
- Timetable for introduction of new equipment
- Calculate and report Network uncertainties on annual basis
- Defra will require all gas analysers for the national Network to be MCERTS approved prior to replacing equipment
- Preliminary assessments indicate around 75% of current Network type approved

UK Context – potential new Network requirements

Pollutant	Current No. of urban sites (traffic)	Min Required by new Directive (traffic)
PM ₁₀	70 (64 TEOM; 7 Grav; 11 traffic)	115 (min 47 PM _{2.5} ; min 39 traffic; min 39 PM ₁₀)
PM _{2.5}	4 (1)	
NO ₂	96 (23)	83 (27)
CO	79 (10)	6 (2)
SO ₂	76	28
Benzene	39 (10)	39 (13)

Costs

- Capital – PM equivalence: £379k; DD4: £434k; New Directive: £1.9-£2.3 million
TOTAL: £2.7-3.1 million
- Installation and running – approx £1.5million per annum on top of current

Pollutant	Averaging time	2005	2004	2003
SO₂	1-hour	1 zone modelled (Eastern)	1 zone modelled (Eastern)	1 zone modelled (Eastern)
SO₂	24-hour	1 zone modelled (Eastern)	none	1 zone modelled (Eastern)
SO ₂	Annual (eco)	none	none	none
SO ₂	Winter (eco)	none	none	none
NO ₂	1-hour	2 zones measured (London, Bristol)	1 zone measured (Greater London Urban Area)	3 zones measured (London, Glasgow, South East)
NO ₂	Annual	38 zones (8 measured + 30 modelled)	39 zones (9 measured + 30 modelled)	42 zones (10 measured + 32 modelled)
NO _x	Annual (eco)	none	none	none
PM₁₀	24-hour	29 zones (3 measured + 26 modelled)	27 zones (2 measured + 25 modelled)	33 zones (10 measured + 23 modelled)
PM₁₀	annual	4 zones (1 measured + 3 modelled)	2 zones (1 measured, London + 1 modelled, West Midlands Urban Area)	15 zones (1 measured + 14 modelled)
Lead	Annual	none	none	none
Benzene	Annual	2 zones modelled (Yorkshire & Humberside, Central Scotland)	none	1 zone modelled (Greater London Urban Area)
CO	8-hour	none	none	none

International: 4th Daughter Directive

- PAHs, Cadmium, Arsenic, Nickel and Mercury
- Published 15 December 2004
- Implemented Directive on 15 February 2007
- Directive requires ambient and deposition monitoring
- Target Values for PAHs (as B[a]P 1 ng/m³), Arsenic (6 ng/m³), Cadmium (5 ng/m³), and Nickel (20 ng/m³)
- Requires replacement of all 24 of current PAH monitors with the reference or equivalent method and requires 10 new sites
- 17 current heavy metals sites – considering necessity for relocating some existing sites and require 11 new sites
- Requires HM and PAH concentration and deposition monitoring at 2 rural background sites (Auchencorth Moss and Harwell)

Other international work...

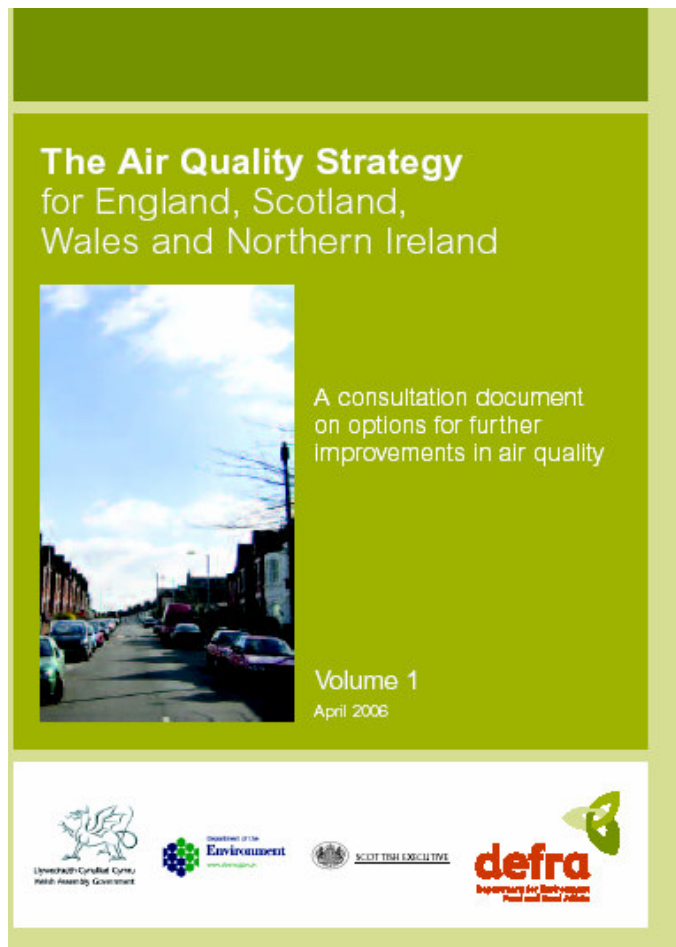
Euro 5 & 6 proposal:

- introduces 2 new stages of pollutant emissions standards for new cars and vans, Euro 5 (1st January 2011) and Euro 6 (1st September 2015).
- substantially tighten particulate matter (PM) and oxides of nitrogen (NOx) limits in response to air quality concerns.
- Achieved a 1st Reading deal package between the Presidency and Parliament Rapporteur. Agreed by COREPER on 5th December. European Parliament vote is on 14 December, and Council vote on 18 December

National Emissions Ceilings Directive

- draft updated UK national programme
- SO₂; NOx.; VOCs; NH₃
- records the measures being taken to meet the NECD obligations
- UK expects to meet the emission ceilings through existing measures
- Consultation closed January 2007
- To replace the report prepared in 2002 on the national strategy

National: Review of Air Quality Strategy



- Launched on 5th April 2006
- Main document
- Technical annexes
- Cost/Benefit Analysis
- Supporting evidence base (web only)
- 1300 pages in total
- 151 responses received
- Currently:
 - Rewriting documents; and
 - Undertaking further analysis
- Final Air Quality Strategy – Summer 07

16th May 2007

Forecasting Seminar

National: Expert Groups

Air Quality Expert Group

- Air Quality and Climate Change report – 2 April 07
- Finalising Primary NO₂ report
- Began work on urban ozone in October 06

EPAQS

- Currently working on metals and metaloids
- Addendum to Halogens report early 2007
- Group to be merged with COMEAP and a small number of members to be transferred

NEGTA

- Will be reformed in 2007 to:
 - update their 2001 report;
 - Consider trends and deposition of metals and their effects on ecosystems; and
 - Consider climate change impacts on deposition

Local: Air Quality Grant

- £2.4m
- Assessing bids at the moment
- Currently oversubscribed by 3x funding
- Aim to inform applicants of grants allocated this month

Local: Future of LAQM

- Defra soon to publish Evaluation Reports on the Review and Assessment and Action Planning support for LAs
- Defra will be undertaking a revision of the LAQM Policy and Technical Guidance during 2007
- Regional Air Quality Co-ordinators' meeting: 12 June 2007
 - Scope of TG update
 - LA Indicators

Local: LAQM Stats (UK)

- About 200 authorities have declared AQMAs
- AQMA by pollutants:

NO ₂	177	68%
PM ₁₀	71	27%
SO ₂	13	4%
Benzene	1	<1%

- LA Action Plans received: draft c. 134
final c. 100

Local: Beacons

- “Delivering Cleaner Air” theme: Beacon status awarded to Croydon, Greenwich, Sefton and Sheffield
- Dissemination of best practice – through NSCA, IAPSC, Learning Exchange, Open Days
- Links made with “Tackling Climate Change Beacon” theme
- www.beacons.idea.gov.uk

Local: LAQM support

- Consult examples of good practice on our websites
- Consult FAQs for new guidance as these are updated often
 - New FAQs on NO_x:NO₂ relationship - updated recently
- **Support to LAs - Monitoring/Modelling/Emissions:**
 - 0870 190 6050** lasupport@aeat.co.uk;
 - www.laqmsupport.org.uk/;
 - www.airquality.co.uk/archive/laqm/laqm.php
- **Action Plans:**
 - 020 7902 6130** actionplanhelp@stanger.co.uk
 - www.casellastanger.com/actionplan_helpdesk/index.asp
- **Review & Assessment:**
 - 0117 344 3668** aqm-review@uwe.ac.uk
 - www.uwe.ac.uk/aqm/review

- Thank you
- Any questions?

- airquality@defra.gsi.gov.uk