

## Air Quality Forum report

Defra's Air Quality Forum met again on 16 January. There were a number of items discussed which will be of interest to members and, again, the Institute played an active part in the meeting.

The first item, as usual, was an update on what is happening in Europe with particular emphasis on the Air Quality and National Emissions Ceiling Directives. The former has now passed through the Parliament with a successful vote in December 2007. The final stage is that it has to be ratified by the Commission and, although in theory it could still be rejected, the feeling is that this will be a formality.

The PM<sub>2.5</sub> issue has been made slightly more complex although some impractical obligations which had been mooted by the Parliament have been avoided. There is also no change on the Common Position on derogations although at one point it seemed that the Parliament had wanted a relaxation on this. There are now two Limit Values for PM<sub>2.5</sub>, one of 25 µg m<sup>-3</sup> to be achieved by 2015 with a tightening to 20 µg m<sup>-3</sup> to be achieved by 2020. These are to be achieved everywhere with the provisos outlined below. There is also an Exposure Concentration Obligation of 20 µg m<sup>-3</sup> (average at urban background sites) for 2015. There are also Exposure Reduction Targets for PM<sub>2.5</sub> but these will be variable depending on the initial concentrations. The whole PM<sub>2.5</sub> question is to be reviewed by 2013.

For both PM<sub>10</sub> and NO<sub>2</sub> flexibility in compliance with the current Limit Values has been introduced but not as a blanket derogation. For PM<sub>10</sub> this is 3 years and for NO<sub>2</sub> 5 years meaning that member states may have until 2011 and 2015 respectively to meet the Limit Values. The qualification is that the extension of the deadlines is subject to approval by the Commission of detailed plans as to how the Limit Values will be met by the due date.

There is also clarification on two important matters. The first, mainly relating to PM, is that only anthropogenic contributions are to be considered. Guidance on how much allowance can be made for natural sources will be made available by the end of 2008 and, presumably, will vary from region to region. The second key point is that although Limit Values will still apply everywhere there is now no requirement to assess compliance at locations where there is no public access.

There are several actions now for the UK assuming the Commission approves the Directive in its current form. Firstly there is a requirement to transpose the Directive into UK law by 2010. Given the difficulties currently being encountered with meeting the PM<sub>10</sub> Limit Value and the likelihood that the NO<sub>2</sub> Limit Value will be equally difficult to meet by 2010 it will be necessary for the UK to prepare and submit plans to allow compliance flexibilities. It is virtually certain that this need actions beyond those currently contained in the Air Quality Strategy. IAQM raised the point that local actions will have to be an important part of the plans. A knock-on of this is likely to be that the LAQM process will have to be revitalised as an issue that involves more than the air quality professionals in Local Authorities and it is hoped that this will be addressed in the review of the Technical and Policy Guidance for LAQM due this spring.

The revised NECD will add primary PM<sub>2.5</sub> to those pollutants currently regulated (SO<sub>2</sub>, NO<sub>x</sub>, NMHC and NH<sub>3</sub>). This will actually be a main driver for the new Directive as the current best estimates are that PM<sub>2.5</sub> reduces average life expectancy by between 6 and 8 months with an annual cost for its health effects of £9 billion to £21 billion. Evidence from EMEP indicates that the UK generates 38% of the secondary inorganic PM<sub>2.5</sub> measured here with the remaining 62% originating in Europe or the North Sea. France and the Netherlands, however, both receive 8% of their secondary inorganic PM<sub>2.5</sub> from the UK.

The revised Directive will have an end date of 2020 and aims at a 47% reduction in loss of life expectancy due to PM<sub>2.5</sub> and a 10 – 15 % reduction in mortality due to ozone and a 15% reduction in forest critical level exposure to ozone. There are also provisions for reductions in acidification and eutrophication critical loads.

So far as the current NECD is concerned it is predicted that the UK will meet the 2010 ceilings for SO<sub>2</sub>, NO<sub>x</sub> and NMHC but there is a serious risk that the ceiling for NO<sub>x</sub> will not be achieved. There appear to be three reasons for this. The first is the increasing costs of energy which is leading to an increase in coal combustion with consequent higher emissions of NO<sub>x</sub>. The second is that Euro 4 will not deliver the forecast improvements in NO<sub>x</sub> emissions but the main reason is the level of emissions from non-road mobile machinery (NRM). IAQM raised the question of whether this could be addressed, at least in part, by a take-up of some elements of the London Best Practice Guidance by other towns and cities. The view expressed was that this could be a profitable approach.

On the transport front targets for CO<sub>2</sub> seem to be driving a fair part of the agenda. There are concerns that there will be a steady rift to diesel with the risk that the greater economy of DERVs will lead to increased driving. A study by NETCEN suggests that the CO<sub>2</sub> benefits will probably lead to adverse health effects. Further, by 2020, the number of diesel vehicles could be double the number of petrol vehicles. Mention was also made of the Heathrow consultation which closes on 27 February and of a European website with information about Low Emission Zones ([www.lowemissionzones.eu](http://www.lowemissionzones.eu)).

Finally the IAQM representative gave two short presentations, the first on the effects of festive events on air pollution. This was well received, at least in part because it highlighted that far from Bonfire Night being an isolated problem night once a year it is actually something that can spread over a number of days depending on the day of the week on which 5 November falls. Equally there are other events that also lead to elevated levels of PM. These include Afro-Caribbean carnivals (the St Pauls Carnival in Bristol being a good example), Diwali, 12 July in some parts of Northern Ireland and New Year's Eve. The second presentation summarised the results of the second round of remote vehicle emissions testing in Bristol. This showed that there still appear to be a considerable number of vehicles (about 10%) that may be emitting excessive pollution. This figure does need to be treated with an element of caution, however, as there are several reasons why a properly adjusted vehicle can appear to be emitting high levels of nitric oxide, the pollutant used to classify the emissions.