

## **APRIL, Emissions Measurement and Modelling Sub-group meeting, 6 April 2011.**

Attendees: See e-mail circulation.

### **1. Introductions**

- Helen ApSimon (HAS) and Bernard Fisher (BF) welcomed attendees and set out the aims of the meeting.

### **2. Defra's Modelling Review and Inter-comparison Exercise**

- Emily Connolly (EC) and Martin Williams (MW) gave a presentation on Defra's Review and Inter-comparison exercise. David Carruthers (DC) also gave a presentation on the hotspot modelling trial in London for the GLA. These presentations were followed by a discussion.
- DC emphasised that models tend to fail to take into account local conditions (eg. street canyons).
- Susannah Grice (SG) said that it was important to look at source apportionment in monitoring as well as monitoring.
- HAS stated that the modelling review showed the importance of transboundary pollution and also of primary NO<sub>2</sub>. It was also clear that models could not show how pollution is actually pushed around by road vehicles, which had been demonstrated in the DAPPLE project.
- MW's said that King's College had found the process useful. It did, however, reveal how modelling is least accurate at roadside, where concentrations are worst.
- A number of contributors felt that it was important not to neglect ozone in an urban context.
- Steve Neville (SN) said that a few years ago, TRL Ltd and selected local authorities had carried out some work to examine emissions at different speeds. EC felt that this was more a matter for emission inventory accuracy rather than models.
- David Hutchinson (DH) explained that in effect, inventories are always trying to catch up – for example, it could not have been predicted how badly Euro standards 1 – 3 would have performed. Nevertheless, a number of contributors felt that it made sense to look at the issues holistically, for example by taking account of real-world emissions testing (such as that undertaken by TfL) in inventories. EC also reported that Defra had commissioned work to look at real world emissions.
- Other factors that it was felt could be considered in future models included driving styles and queuing traffic.
- SN queried whether the met data used for models was adequate, as it was often based on Heathrow Airport, which is not necessarily typical. While other sources of met data were discussed (including data from schools) it was concluded that there were currently no realistic alternatives. HAS mentioned the NERC work that is underway to look at conditions just above street level.

### **3. APRIL Emissions Measurement and Modelling sub-group priorities**

- All group members were asked to provide HAS and BF with ideas for future work for the sub-group to undertake.
- It was suggested that development of exposure metrics could be one useful area of work.
- HAS suggested a workshop later in the year to look into non-transport emissions.
- A number of contributors felt that advice was needed by practitioners on how to interpret models better.
- DH, HAS and BF agreed to investigate the possibility of holding a joint meeting between this sub-group and the Transport sub-group.