

2 The UK Air Quality Strategy

2.1 NATIONAL AIR QUALITY STANDARDS

The Government prepared the Air Quality Strategy for England, Scotland, Wales and Northern Ireland for consultation in August 1999. It was published in January 2000 (DETR, 2000)⁴ with an addendum issued in February 2003. The Air Quality Strategy uses national air quality standards to enable air quality to be measured and assessed. These also provide the means by which objectives and timescales for the achievement of objectives can be set. These standards and associated specific objectives to be achieved between 2003 and 2010 are shown in Table 1.1. The table shows the standards in mass concentrations ($\mu\text{g m}^{-3}$ or mg m^{-3}) with the number of exceedences that are permitted (where applicable) and the equivalent percentile.

2.2 TIMESCALES TO ACHIEVE THE OBJECTIVES FOR THE POLLUTANTS IN AIR QUALITY STRATEGY

In most local authorities in the UK, objectives were (or will be) met for most of the pollutants within the timescale of the objectives shown in Table 1.1. It is important to note that the objectives for NO_2 remain provisional. The Government has recognised the problems associated with achieving the standard for ozone and this will not therefore be a statutory requirement. Ozone is a secondary pollutant and transboundary in nature and it is recognised that local authorities themselves can exert little influence on concentrations when they are the result of regional primary emission patterns.

2.3 AIR QUALITY REVIEWS – APPROACHES AND EXPECTED OUTCOMES

Technical Guidance has been issued in 'Review and Assessment Technical Guidance' LAQM.TG(03) to enable air quality to be monitored, modelled, reviewed and assessed in an appropriate and consistent fashion. This updating and screening assessment has considered the procedures set out in this technical guidance.

The primary objective of undertaking a review of air quality is to identify any areas that are unlikely to meet national air quality objectives and ensure that air quality is considered in local authority decision-making processes. The complexity and detail required in a review depends on the risk of failing to achieve air quality objectives and it has been proposed therefore that reviews should be carried out in two steps. Both steps of review and assessment may be necessary and every authority is expected to undertake at least a first stage review and assessment of air quality in their authority area. The steps are briefly described in Table 2.1.

Table 2.1 Brief details of steps in the third Round of the Air Quality Review and Assessment process

| Level of Assessment | Objective | Approach |
|-------------------------|--|--|
| Updating and Screening | To identify those matters that have changed since the last review and assessment, which might lead to a risk of an air quality objective being exceeded. | Use a checklist to identify significant changes that require further consideration. Where such changes are identified, apply simple screening tools to decide whether there is sufficient risk of an exceedance of an objective to justify a Detailed Assessment. |
| Detailed Assessment | To provide an accurate assessment of the likelihood of an air quality objective being exceeded at locations with relevant exposure. This should be sufficiently detailed to allow the designation or amendment of any necessary AQMAs. | Use quality-assured monitoring and validated modelling methods to determine current and future pollutant concentrations in areas where there is a significant risk of exceeding an air quality objective. |
| Annual Progress reports | Local authorities should prepare annual air quality Progress Reports between subsequent rounds of reviews and assessments. The concept is that this will ensure continuity in the LAQM process. | The precise format of the progress report is left up to the local authority to decide, but guidance on what it should cover is available in LAQM.PRG(03), published in 2003. It is envisaged that these Progress Reports could be useful for the compilation of annual 'state of the environment' reports that many authorities already prepare. |

The current deadline for the completion of updating and screening assessments is April 2006, and for detailed assessments April 2007.

2.4 LOCATIONS THAT THE REVIEW AND ASSESSMENT MUST CONCENTRATE ON

For the purpose of review and assessment, the authority should focus their work on locations where members of the public are likely to be exposed over the averaging period of the objective. Table 2.2 summarises the locations where the objectives should and should not apply.

It is unnecessary to consider exceedences of the objectives at any location where public exposure over the relevant averaging period would be unrealistic. Locations should also represent non-occupational exposure.

Table 2.2 Typical locations where the objectives should and should not apply

| Averaging Period | Pollutants | Objectives should apply at ... | Objectives should not generally apply at ... |
|------------------------------|--|--|---|
| Annual mean | <ul style="list-style-type: none"> • 1,3 Butadiene • Benzene • Lead • Nitrogen dioxide • Particulate Matter (PM₁₀) | All background locations where members of the public might be regularly exposed | Building facades of offices or other places of work where members of the public do not have regular access |
| | | Building facades of residential properties, schools, hospitals, libraries etc | Gardens of residential properties |
| | | | Kerbside sites (as opposed to locations at the building facade), or any other location where public exposure is expected to be short term |
| 24-hour mean and 8-hour mean | <ul style="list-style-type: none"> • Carbon monoxide • Particulate Matter (PM₁₀) • Sulphur dioxide | All locations where the annual mean objective would apply | Kerbside sites (as opposed to locations at the building facade), or any other location where public exposure is expected to be short term |
| | | Gardens of residential properties | |
| 1-hour mean | <ul style="list-style-type: none"> • Nitrogen dioxide • Sulphur dioxide | All locations where the annual mean and 24 and 8-hour mean objectives apply | Kerbside sites where the public would not be expected to have regular access |
| | | Kerbside sites (e.g. pavements of busy shopping streets) | |
| | | Those parts of car parks and railway stations etc. which are not fully enclosed | |
| | | Any outdoor locations to which the public might reasonably be expected to have access | |
| 15 minute mean | <ul style="list-style-type: none"> • Sulphur dioxide | All locations where members of the public might reasonably be exposed for a period of 15 minutes or longer | |