

## 4 Updating and Screening Assessment for Carbon Monoxide

### 4.1 THE NATIONAL PERSPECTIVE

The main source of carbon monoxide in the United Kingdom is road transport, which accounted for 49% of total releases in 2003. Annual emissions of carbon monoxide have been falling steadily since the 1970s, and are expected to continue to do so. The automatic monitoring network recorded no exceedences of the objective in 2005 at any location across the UK.

### 4.2 STANDARD AND OBJECTIVE FOR CARBON MONOXIDE

The Government and the Devolved Administrations originally adopted an 8-hour running mean concentration of  $11.6 \text{ mgm}^{-3}$  as the air quality standard for carbon monoxide. A new objective was then set at a slightly tighter level of  $10 \text{ mgm}^{-3}$  as a running 8-hour mean concentration to have been achieved by the end of 2003, bringing it into line with the second Air Quality Daughter Directive limit value.

### 4.3 CONCLUSIONS OF THE PREVIOUS ROUNDS OF REVIEW AND ASSESSMENT FOR CARBON MONOXIDE

The Updating and Screening Assessment undertaken for King's Lynn and West Norfolk in 2003 concluded that the likelihood of an exceedence of the objective for CO was negligible, and the 2004 progress report concluded that this finding was still valid. No AQMAs have been declared for carbon monoxide.

### 4.4 SCREENING ASSESSMENT OF CARBON MONOXIDE

#### 4.4.1 Screening Check List

The Technical Guidance LAQM.TG(03) requires assessment of carbon monoxide to consider the following sources, data or locations:

- Monitoring data
- Very busy roads or junctions in built up areas

These are described in the following sections.

#### 4.4.2 Background Concentrations of Carbon Monoxide

The 2003 average background annual mean concentration for carbon monoxide estimated from the UK background maps (<http://www.airquality.co.uk/archive/laqm/tools.php>) and the year adjustment factors published in LAQM.TG(03) was  $0.20 \text{ mgm}^{-3}$ , with a maximum concentration of  $0.26 \text{ mgm}^{-3}$ .

#### 4.4.3 Screening Assessment of Monitoring Data

Monitoring of carbon monoxide is not undertaken in the Borough of King's Lynn and West Norfolk.

#### 4.4.4 Screening Assessment for Very Busy Roads

The guidance document LAQM.TG(03) requires assessment of carbon monoxide only at 'very busy roads', or junctions in built up areas. A 'very busy' road is defined in LAQM.TG(03) as a single carriageway road with a daily average traffic flow greater than 80,000 vehicles. Very busy dual carriageways and motorways have daily average traffic flows greater than 120,000 and 140,000

respectively. In addition to this, the guidance also states that these will only need to be assessed in areas where the estimated background concentration is expected to be above 1 mgm<sup>-3</sup>.

The maximum background concentration for King's Lynn and West Norfolk is estimated at 0.26 mgm<sup>-3</sup>. Based on traffic data obtained from the County Council and the NAEI, there are no roads that can be classified as 'very busy.'

## 4.5 CONCLUSIONS FOR CARBON MONOXIDE IN THE BOROUGH

Estimated background concentrations indicate that the objective for carbon monoxide is being achieved across the Borough of King's Lynn and West Norfolk. There are no roads in the Borough with relevant exposure that can be classified as 'very busy' according to the criteria in the guidance.

Consequently, the Borough Council of King's Lynn and West Norfolk is not required to carry out a Detailed Assessment for carbon monoxide.

	Source, location or data that need to be assessed	Updating and Screening Assessment
A	Monitoring data	This local Authority is not currently monitoring carbon monoxide concentrations
B	Very busy roads or junctions in built-up areas	No roads or junctions in the Borough of King's Lynn and West Norfolk can be classified as 'very busy', according to the criteria in the guidance
	<b>Conclusion</b>	There have been no significant changes with regards to carbon monoxide in this Authority. <b>A detailed assessment is not required for King's Lynn and West Norfolk.</b>