

## Appendix 8.1 Air Quality Standards and Objectives

Air Quality Objectives currently included in the Air Quality Regulations 2000 and (Amendment) Regulations 2002 for the purpose of Local Air Quality Management (LAQM)						
Pollutant	Applies to	Standard		Objective		EU AQ Directive
		Concentration	Measured as	Annual exceedences allowed	Target date	
Benzene (C <sub>6</sub> H <sub>6</sub> )	All UK	16.25µg/m <sup>3</sup>	running annual mean		31.12.2003	
	England and Wales	5µg/m <sup>3</sup>	annual mean		31.12.2010	As standard. target: 01.01.2010
	Scotland	3.25µg/m <sup>3</sup>	running annual mean		31.12.2010	
1,3-Butadiene (C <sub>4</sub> H <sub>6</sub> )	All UK	2.25µg/m <sup>3</sup>	running annual mean		31.12.2003	
Carbon monoxide (CO)	All UK	10mg/m <sup>3</sup>	maximum daily running 8 hour mean		31.12.2003	As standard. target: 01.01.2005
Lead (Pb)	All UK	0.5µg/m <sup>3</sup>	annual mean		31.12.2004	As standard. target: 01.01.2005 <sup>8</sup>
	All UK	0.25µg/m <sup>3</sup>	annual mean		31.12.2008	
Nitrogen dioxide (NO <sub>2</sub> )	All UK	200µg/m <sup>3</sup>	1 hour mean	18	31.12.2005	As objective. target: 01.01.2010
	All UK	40µg/m <sup>3</sup>	annual mean		31.12.2005	As standard. target: 01.01.2010
Particulate Matter (PM <sub>10</sub> ) (gravimetric) <sup>1</sup>	All UK	40µg/m <sup>3</sup>	annual mean		31.12.2004	As standard. target: 01.01.2005
	All UK	50µg/m <sup>3</sup>	24 hour mean	35	31.12.2004	As objective. target: 01.01.2005
	Scotland	50µg/m <sup>3</sup>	24 hour mean	7	31.12.2010	As objective. target: 01.01.2010
	Scotland	18µg/m <sup>3</sup>	annual mean		31.12.2010	
Sulphur dioxide (SO <sub>2</sub> )	All UK	266µg/m <sup>3</sup>	15 minute mean	35	31.12.2005	
	All UK	350µg/m <sup>3</sup>	1 hour mean	24	31.12.2004	As objective. target: 01.01.2005
	All UK	125µg/m <sup>3</sup>	24 hour mean	3	31.12.2004	As objective. target: 01.01.2005

Provisional Air Quality Objectives currently NOT included in the Air Quality Regulations 2000 and (Amendment) Regulations 2002 for the purpose of Local Air Quality Management (LAQM)						
Pollutant	Applies to	Standard		Objective		EU AQ Daughter Directive
		<i>Concentration</i>	<i>Measured as</i>	<i>Annual exceedences allowed</i>	Target date	
Polycyclic aromatic hydrocarbons (PAHs) <sup>2</sup>	All UK	0.25ng/m <sup>3</sup> B[a]P <sup>3</sup>	annual mean		31.12.2010	
Particulate Matter (PM <sub>2.5</sub> ) (gravimetric) <sup>1,2</sup>	UK (except Scotland)	25µg/m <sup>3</sup>	annual mean	-	2020	As standard Target 2010
	Scotland	12µg/m <sup>3</sup>	annual mean	-	2020	25µg/m <sup>3</sup> Target 2015
	UK urban areas	Target of 15% reduction in concentrations at urban background	annual mean	-	Between 2010 and 2020	Target 20% reduction in concentrations at urban background Target Between 2010 and 2020

Other Air Quality Strategy Objectives						
Pollutant	Applies to	Standard		Objective		EU AQ Daughter Directive
		<i>Concentration</i>	<i>Measured as</i>	<i>Annual exceedences allowed</i>	Target date	
For the protection of human health						
Ozone (O <sub>3</sub> ) <sup>4</sup>	All UK	100µg/m <sup>3</sup>	maximum daily running 8 hour mean	10	31.12.2005	As objective; but 25 annual exceedences target: 01.01.2010
For the protection of vegetation and ecosystems <sup>5</sup>						
Nitrogen oxides (NO <sub>x</sub> ) <sup>6</sup>		30µg/m <sup>3</sup>	annual mean		31.12.2000 <sup>7</sup>	As standard. target: 19.07.2001
Sulphur dioxide (SO <sub>2</sub> )		20µg/m <sup>3</sup>	annual mean		31.12.2000 <sup>7</sup>	As standard. target: 19.07.2001
		20µg/m <sup>3</sup>	winter mean (1 October to 31 March)		31.12.2000 <sup>7</sup>	As standard. target: 19.07.2001

**Explanation:**

ng/m<sup>3</sup> = nanogrammes per cubic metre;

µg/m<sup>3</sup> = microgrammes per cubic metre;

mg/m<sup>3</sup> = milligrammes per cubic metre (i.e. microgrammes per cubic meter x 1,000);

- 1 Measured using the European gravimetric transfer sampler or equivalent.
- 2 Objective to be set in regulations in the future.
- 3 Concentration of Benzo[a]pyrene (B[a]P) to be measured as a marker for the total mixture of PAHs.
- 4 The objective for this pollutant is provisional and must be tackled at a national level due to its transboundary nature.
- 5 Only applies to those parts of the UK > 20km from an agglomeration; and > 5km from Part A processes, motorways and built up areas of > 5,000 people.
- 6 Assuming NO<sub>x</sub> is taken as NO<sub>2</sub>.
- 7 These objectives have successfully been achieved.
- 8 Also an EU AQ Directive Limit Value of 1µg/m<sup>3</sup> to be achieved by 01.01.2010 in the immediate vicinity (1000 m) of certain named industrial sources situated on sites contaminated by decades of industrial activities.

The Air Quality Strategy states that further review and assessment and consultation in relation to air quality will be a rolling process, with additional revisions to the objectives for selected pollutants as appropriate, or where there is new evidence in relation to the effects of pollutants on health or ecosystems. New pollutants may be introduced through future reviews.