

## APPENDIX 14.1: LEGISLATION AND GUIDANCE

### Legislation

#### **Air Quality Directive 2008/50/EC<sup>i</sup>**

Legislation for the European Community is created through a number of Directives. Each of the Member States are required to incorporate the Directives into their own legislative Framework.

The Air Quality Directive 2008/50/EC (also known as the CAFÉ Directive) came into force on the 11<sup>th</sup> June 2008. This directive consolidated the existing Directives (with the exception of the Fourth Daughter Directive (2004/107/EC), which relates to target levels in outdoor air of certain toxic heavy metals and other polycyclic aromatic hydrocarbons (PAHs)) and one Council Decision into a single Directive on air quality. It sets air quality limit values, target values, and critical levels for a number of air pollutants established by the European Parliament and Council for the protection of human health, vegetation and ecosystems. These are sulphur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), oxides of nitrogen (NO<sub>x</sub>) particulate matter smaller than 10µm in aerodynamic diameter (PM<sub>10</sub> and PM<sub>2.5</sub>), lead (Pb), benzene (C<sub>6</sub>H<sub>6</sub>), carbon monoxide (CO) and ozone (O<sub>3</sub>).

It also sets new standards and target dates for reducing concentrations of fine particles (i.e. particulate matter smaller than 2.5µm).

#### **Air Quality Strategy for England, Scotland, Wales and Northern Ireland<sup>ii</sup>**

The Government's policy on air quality within the UK is set out in the Air Quality Strategy for England, Scotland, Wales and Northern Ireland (AQS) published in July 2007. The AQS provides a framework for reducing air pollution in the UK with the aim of meeting the requirements of European Union legislation and international commitments.

The AQS also sets standards and objectives for nine key air pollutants to protect health, vegetation and ecosystems. These are C<sub>6</sub>H<sub>6</sub>, 1,3 butadiene (C<sub>4</sub>H<sub>6</sub>), CO, Pb, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, O<sub>3</sub>, and polycyclic aromatic hydrocarbons (PAHs). A summary of the AQS standards and objectives relevant to this assessment are provided in the table overleaf.

The air quality standards are levels recommended by the Expert Panel on Air Quality (EPAQS) and the World Health Organization (WHO), with regards to current scientific knowledge about the effects of each pollutant on health and on the environment.

For some pollutants, (e.g. NO<sub>2</sub>), there is both a long term (annual mean) standard and a short-term standard. In the case of NO<sub>2</sub>, the short term standard is for a 1-hour averaging period, whereas for PM<sub>10</sub> it is for a 24-hour averaging period. These periods reflect the varying effects on health of differing exposures to pollutants, for example temporary exposure on the pavement adjacent to a busy road, compared with the exposure of residential properties adjacent to a road.

The AQS contains a framework for considering the effects of a finer group of particles known as 'PM<sub>2.5</sub>' as there is increasing evidence that this size range of

particles can be more closely associated with observed adverse health effects than PM<sub>10</sub>.

### **Air Quality Standard Regulations 2010<sup>iii</sup>**

The Air Quality Standard Regulations 2010 transpose the Air Quality Directive 2008/50/EC into UK legislation and also incorporate the 4<sup>th</sup> air quality daughter directive (2004/107/EC) that sets targets for levels in outdoor air of certain toxic heavy metals (Arsenic (As), Cadmium (Cd), Nickel (Ni), Mercury (Hg)), Benzo(a)pyrene and other polycyclic aromatic hydrocarbons (PAHs).

### **Air Quality (England) Regulations 2000<sup>iv</sup> and Air Quality (England) (Amendment) Regulations 2002<sup>v</sup>**

Many of the objectives in the AQS have been made statutory in England with the Air Quality (England) Regulations 2000 and the Air Quality (England) (Amendment) Regulations 2002 for the purpose of Local Air Quality Management (LAQM). These set a series of air quality standards and air quality objectives with the aim of protecting human health.

The Regulations require that likely exceedences of the Air Quality Objectives (AQO) are assessed in relation to:

*"...the quality of the air at locations which are situated outside of buildings or other natural or man-made structures, above or below ground, and where members of the public are regularly present..."*

The AQO apply only where members of the public are likely to be regularly present for the averaging time of the objectives (i.e. where people will be exposed to pollutants). The annual mean objectives apply to all locations where members of the public might be regularly exposed; these include building façades of residential properties, schools, hospitals, care homes etc. The 24-Hourly Mean Objectives apply to all locations where the annual mean objective would apply, together with hotels and gardens of residential properties. The 1 Hour Mean Objectives also apply at these locations as well as at any outdoor location where a member of the public might reasonably be expected to stay for 1 hour or more, such as shopping streets, parks and sports grounds, as well as bus stations and railway stations that are not fully enclosed.

Although a target for PM<sub>2.5</sub> is included in the AQS, these objectives have not yet been incorporated into the Regulations. Consequently there is currently no requirement for local authorities to assess this pollutant as part of their statutory obligations.

### **The Environmental Protection Act 1990 – Control of Dust and Particulates Associated with Construction<sup>vi</sup>**

Section 79 of the Environmental Protection Act 1990 gives the following definitions of statutory nuisance relevant to dust and particles:

*"Any dust, steam, smell or other effluvia arising from industrial, trade or business premises or smoke, fumes or gases emitted from premises so as to be prejudicial to health or a nuisance", and*

*"any accumulation or deposit which is prejudicial to health or a nuisance".*

Following this, Section 80 says that where a statutory nuisance is shown to exist, the local authority must serve an abatement notice. Failure to comply with an abatement notice is an offence and if necessary, the local authority may abate the nuisance and recover expenses.

There are no statutory limit values for dust deposition above which 'nuisance' is deemed to exist. Nuisance is a subjective concept and its perception is highly dependent upon the existing conditions and the change which has occurred.

### The Environment Act 1995<sup>vii</sup>

Part IV of the Environment Act 1995, introduced the Local Air Quality Management regime, within which local authorities must regularly review and document local air quality within their area against the air quality objectives defined in the Regulations. Where the objectives are not likely to be achieved, an authority is required to designate an Air Quality Management Area (AQMA). For each AQMA the local authority is required to draw up an Air Quality Action Plan (AQAP) to secure improvements in air quality and show how it intends to work towards achieving air quality standards in the future.

National air quality objectives and European Directive limit values for the protection of human health						
Pollutant	Applies to	Objective	Measured as	Date to be achieved by and maintained thereafter	Europeans Obligations	Date to be achieved by and maintained thereafter
Nitrogen dioxide (NO <sub>2</sub> )	All UK	200µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1 hour mean	31.12.2005	200µg/m <sup>3</sup> not to be exceeded more than 18 times a year	01.01.2010
	All UK	40µg/m <sup>3</sup>	annual mean	31.12.2005	40µg/m <sup>3</sup>	01.01.2010
Particulate Matter (PM <sub>10</sub> ) (gravimetric) <sup>A</sup>	All UK	40µg/m <sup>3</sup>	annual mean	31.12.2004	40µg/m <sup>3</sup>	01.01.2005
	All UK	50µg/m <sup>3</sup> not to be exceeded more than 35 times a year	24 hour mean	31.12.2004	50µg/m <sup>3</sup> not to be exceeded more than 35 times a year	01.01.2005

National air quality objectives and European Directive limit values for the protection of vegetation and ecosystems						
Pollutant	Applies to	Objective	Measured as	Date to be achieved by and maintained thereafter	Europeans Obligations	Date to be achieved by and maintained thereafter
Nitrogen oxides (NO <sub>x</sub> )	All UK	30µg/m <sup>3</sup>	Annual mean	31.12.2000	30µg/m <sup>3</sup>	19.07.2001

#### Explanation

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

<sup>A</sup> Measured using the European gravimetric transfer sampler or equivalent.

## Guidance

### **Local Air Quality Management Review and Assessment Technical Guidance LAQM.TG(16) (DEFRA, 2016)<sup>viii</sup>**

The Department for Environment, Food and Rural Affairs (DEFRA) has published technical guidance for use by local authorities in their review and assessment work. This guidance, referred to in this Chapter as LAQM.TG(16), has been used where appropriate in the assessment presented herein. This guidance contains a table (Box 1.1) providing examples of where the air quality objectives should/should not apply.

Of the pollutants included in the AQS, LAQM.TG(16) explains that NO<sub>2</sub> and PM<sub>10</sub> are of particular concern as road traffic is a major source of emissions of these pollutants. Local authorities undertaking review and assessments of air quality are finding that, where road traffic is the dominant source of air pollution, the objectives for these pollutants are likely to be the most difficult to achieve. It is also generally considered that, where concentrations of NO<sub>2</sub> and PM<sub>10</sub> meet their respective objectives, and there are no other local sources of air pollution, such as from industrial processes, objectives for the other pollutants included in the Regulations will also be achieved.

### **Institute of Air Quality Management & Environmental Protection UK's Land Use Planning and Development Control; Planning for Air Quality 2015<sup>ix</sup>**

This air quality guidance produced by IAQM & EPUK offers comprehensive advice on when an air quality assessment may be required, what should be included in an assessment, how to determine the significance of any air quality impacts associated with a development and the possible mitigation measures which may be implemented to minimise these effects.

### **Institute of Air Quality Management: Guidance on the Assessment of Dust from Demolition and Construction (February 2014)<sup>x</sup>**

This document was produced to provide guidance to developers, consultants and environmental health practitioners on how to undertake a construction impact assessment. The emphasis of the guidance is on classifying the risk of dust impacts from a site, which then allow mitigation measures commensurate with that risk to be identified.

<sup>ii</sup> The European Parliament and of the Council, (2008), Air Quality Directive 2008/50/EC.

<sup>ii</sup> Department for Environment, Food and Rural Affairs and the Devolved Administration (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (Volumes 1 and 2).

<sup>iii</sup> Department for Environment, Food and Rural Affairs, (2010), The Air Quality Standards Regulations 2010 - Statutory Instrument 2010 No. 1001, The Stationery Office Limited publications.

<sup>iv</sup> Department of the Environment, Transport and the Regions, (2000), The Air Quality (England) Regulations 2000 - Statutory Instrument 2000 No.928.

<sup>v</sup> Department for Environment, Food and Rural Affairs, (2002), The Air Quality (England) (Amendment) Regulations 2002- Statutory Instrument 2002 No.3043.

<sup>vi</sup> The Environmental Protection Act 1990 [Online] Available at: <http://www.legislation.gov.uk/ukpga/1990/43/contents> [Date accessed 10.06.16].

<sup>vii</sup> The Environment Act 1995 [Online] Available at: <http://www.legislation.gov.uk/ukpga/1995/25/contents> [Date accessed 10.06.16].

<sup>viii</sup> Department for Environment, Food and Rural Affairs. (2016). Local Air Quality Management Review and Assessment Technical Guidance LAQM.TG(16).

<sup>ix</sup> Environmental Protection UK (2010). Development Control: Planning for Air Quality (2010 Update).

<sup>x</sup> Institute of Air Quality Management (2014). Guidance on the Assessment of Dust from Demolition and Construction.