STATUTORY RULES OF NORTHERN IRELAND

2010 No. 188

ENVIRONMENTAL PROTECTION

The Air Quality Standards Regulations (Northern Ireland) 2010

Made - - - -	*21st May 2010*
Coming into operation	*11th June 2010*

The Department of the Environment makes the following Regulations in exercise of the powers conferred by section 2(2) of the European Communities Act 1972(**1**).

The Department of the Environment is designated(**2**)for the purposes of section 2(2) of the European Communities Act 1972 in relation to the environment.

PART 1

General

Citation and commencement

1. These Regulations may be cited as the Air Quality Standards Regulations (Northern Ireland) 2010 and shall come into operation on 11th June 2010.

Definitions and interpretation

2.—(1) The Interpretation Act (Northern Ireland) 1954(**3**) shall apply to these Regulations as it applies to an Act of the Northern Ireland Assembly.

(2) In these Regulations—

"ambient air" means outdoor air in the troposphere, excluding workplaces as defined by Directive 89/654/EEC(**4**) where provisions concerning health and safety at work apply and to which members of the public do not have regular access;

"AOT 40" (expressed in ($\mu g/m^3$) · hours) means the sum of the difference between hourly concentrations greater than 80 $\mu g/m^3$ (= 40 parts per billion) and 80 $\mu g/m^3$ over a given period

(**1**) 1972 c.68
(**2**) S.I. 2008/301
(**3**) 1954 c.33 (N.I.)
(**4**) OJ L 393, 30.12.1989, p.35-36

using only the one-hour values measured between 8.00 and 20.00 Central European Time (CET) each day;

"arsenic, cadmium, nickel and benzo(a)pyrene" mean the total content of those elements and compounds within the PM_{10} present in ambient air;

"average exposure indicator" means the indicator calculated by the Secretary of State under Regulation 23 of the Air Quality Standards Regulations 2010(**5**);

"chemical speciation concentrations" means the concentrations of different chemical components or species of $PM_{2.5}$;

"Directive 2004/107/EC" means Directive 2004/107/EC of the European Parliament and of the Council relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air(**6**);

"fixed measurements" means measurements taken at fixed locations, either continuously or by sampling from time to time, to determine levels of pollutants in accordance with the relevant data quality objectives;

"indicative measurement" means measurements which meet data quality objectives that are less strict than those required for fixed measurements;

"margin of tolerance" means the percentage of the limit value by which that value may be exceeded in a given year;

"national exposure reduction target" means the target established by the Secretary of State under Regulation 24 of the Air Quality Standards Regulations 2010;

"oxides of nitrogen" means the sum of the volume mixing ratio (ppbv) of nitrogen monoxide (nitric oxide) and nitrogen dioxide expressed in units of mass concentration of nitrogen dioxide ($\mu g/m^3$);

"ozone precursor substances" means substances which contribute to the formation of ground level ozone;

"PM_{10}" means particulate matter which passes through a size-selective inlet as defined in the reference method for the sampling and measurement of PM_{10}, EN 12341, with a 50% efficiency cut-off at 10 µm aerodynamic diameter;

"$PM_{2.5}$" means particulate matter which passes through a size-selective inlet as defined in the reference method for the sampling and measurement of $PM_{2.5}$, EN 14907, with a 50% efficiency cut-off at 2.5 µm aerodynamic diameter;

"particulate matter" means $PM_{2.5}$ and PM_{10};

"pollutant" means any of the following—

(a) sulphur dioxide,

(b) nitrogen dioxide,

(c) oxides of nitrogen,

(d) particulate matter,

(e) lead,

(f) benzene,

(g) carbon monoxide,

(h) arsenic,

(i) cadmium,

(**5**) S.I. 2010/1001

(**6**) OJ No L 23, 26.1.2005, p.3, last amended by Regulation (EC) No 219/2009 (OJ No L 87, 31.3.2009, p.109)

(j) mercury,

(k) nickel,

(l) benzo(a)pyrene or other polycyclic aromatic hydrocarbons,

(m) ozone;

"polycyclic aromatic hydrocarbons" means those organic compounds composed of at least two fused aromatic rings made entirely from carbon and hydrogen;

"the Department" means the Department of the Environment;

"the Directive" means Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe(**7**);

"total gaseous mercury" means elemental mercury vapour (Hg^0) and reactive gaseous mercury, i.e. water-soluble mercury species with sufficiently high vapour pressure to exist in the gas phase.

Designation of competent authorities

3. The Department is designated as the competent authority for the purposes of the Directive on ambient air quality and cleaner air for Europe, and for the purposes of Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

Responsibility for implementation of the ambient air quality and cleaner air for Europe Directive

4.—(1) For the purposes of Article 3 (Responsibilities) of the Directive (other than for the purposes specified in Article 3(f) of the Directive), the Department shall be the competent authority responsible for—

(a) assessment of ambient air quality;

(b) approval of measurement systems (methods, equipment, networks and laboratories);

(c) ensuring the accuracy of measurements;

(d) analysis of assessment methods;

(e) co-ordination of European Community-wide quality assurance programmes organised by the European Commission, save in so far as that co-ordination entails communication with the European Commission;

(2) The Department in discharging its responsibilities in compliance with paragraph (1) and any Department exercising functions in compliance with paragraph (3) shall comply with Section C of Annex I to the Directive.

(3) Where a Northern Ireland department has functions relevant to the assessment and maintenance of ambient air quality, it shall exercise those functions so as to ensure compliance with the requirements of the Directive.

Zones and agglomerations

5.—(1) The Department shall, for the purposes of these Regulations, divide the territory of Northern Ireland into zones and agglomerations.

(2) A zone will be classified as an agglomeration if it is a conurbation with a population in excess of 250,000 inhabitants.

(**7**) OJ No L 152, 11.6.2008, p.1

(3) In these Regulations references to a zone includes a zone which has been classified as an agglomeration.

PART 2

Assessment of ambient air quality

CHAPTER 1

Sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide

Assessment thresholds

6.—(1) The Department shall classify each zone according to whether or not the upper or lower assessment thresholds specified in Section A of Annex II to the Directive are exceeded in relation to sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide in ambient air.

(2) The Department shall review the classification of zones carried out in accordance with paragraph (1) at least every five years, and shall do so more frequently if there are significant changes in the activities which may affect levels of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene or carbon monoxide in ambient air.

(3) When reviewing the classification of zones in accordance with paragraph (2), the Department shall comply with Section B of Annex II to the Directive.

Assessment criteria

7.—(1) The Department shall assess the level of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide in ambient air in all zones.

(2) In all zones where the level of those pollutants exceeds the upper assessment threshold referred to in regulation 6, fixed measurements shall be used, but may be supplemented by modelling or indicative measurements or both, in order to provide adequate information on the spatial distribution of the ambient air quality.

(3) In all zones where the level of those pollutants is below the lower assessment threshold referred to in regulation 6, modelling or estimation techniques or both may be used instead of measurement.

(4) In all other zones a combination of fixed measurements together with modelling or indicative measurements or both may be used.

(5) In addition to the measurements referred to in paragraphs (1) to (4), the Department shall measure $PM_{2.5}$ at rural background locations away from significant sources of air pollution, in order to provide information on an annual average basis on the total mass concentration and chemical speciation concentrations of that pollutant.

(6) For the purposes of paragraphs (1) to (4), measurements shall be carried out in accordance with the criteria set out in Sections A and C of Annex I, to the Directive, and for the purposes of paragraph (5), measurements shall be carried out in accordance with the criteria set out in Annex IV to the Directive.

(7) Save as provided for in paragraph (8), for the purposes of paragraph (6), measurements for the purposes of this regulation shall be taken in accordance with the reference measurement methods specified in Section A and Section C of Annex VI to the Directive.

(8) Alternative methods to those referred to in paragraph (7) may be used provided the conditions set out in Section B of that Annex are complied with.

(9) Where measurements are supplemented by modelling or indicative measurement then the Department shall take account of the results of those supplementary methods in assessing ambient air quality for the purposes of these Regulations.

Location and number of sampling points

8.—(1) The Department shall install sampling points in accordance with Schedule 1 for the assessment of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide.

(2) In zones where fixed measurement is the sole source of information for the assessment of air quality, the number of sampling points must be more than or equal to the minimum number specified in Section A of Annex V to the Directive for the purpose of assessing compliance with limit values and alert thresholds.

(3) In zones other than agglomerations where fixed measurement is the sole source of information for the assessment of air quality, the minimum number of sampling points shall be more than or equal to the minimum number specified in Section C of Annex V to the Directive for the purpose of assessing compliance with critical levels for the protection of vegetation.

(4) In zones where the information from fixed measurement is supplemented by information from modelling or indicative measurement or both, the number of sampling points in either Section A or C of Annex V or both, may be reduced by up to 50% provided that the following conditions are met—

(a) the supplementary methods provide sufficient information for the assessment of air quality in relation to limit values or alert thresholds;

(b) the supplementary methods provide sufficient information to inform the public as to the state of ambient air quality; and

(c) the number of sampling points to be installed and the spatial resolution of other techniques are sufficient for the concentration of the relevant pollutant to be established in accordance with the data quality objectives specified in Section A of Annex I to the Directive and enable assessment results to meet the criteria in Section B of the same Annex.

(5) For the measurement of $PM_{2.5}$ in rural background locations, the Department shall install a sampling point for every 100,000km^2.

CHAPTER 2

Ozone

Assessment criteria

9.—(1) The Department shall assess the levels of ozone in ambient air in all zones.

(2) The Department shall ensure that fixed measurements are taken in any zone where the concentrations of ozone have exceeded the long-term objectives specified in Schedule 4 during any of the previous five years of measurement.

(3) Save as provided for in paragraph (4) for the purposes of paragraph (2), measurements shall be taken in accordance with the reference measurement methods specified in point 8 of Section A of Annex VI to the Directive.

(4) Alternative methods to those referred to in paragraph (3) may be used provided the conditions set out in Section B of that Annex are complied with.