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WELSH STATUTORY INSTRUMENTS

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**2010 No. 1433 (W.126)**

**ENVIRONMENTAL PROTECTION, WALES**

**The Air Quality Standards (Wales) Regulations 2010**

<i>Made</i>	- - - -	<i>16 May 2010</i>
<i>Laid before the National Assembly for Wales</i>	- -	<i>19 May 2010</i>
<i>Coming into force</i>	- -	<i>11 June 2010</i>

The Welsh Ministers, in exercise of the powers conferred upon the National Assembly for Wales by its designation<sup>(1)</sup> for the purposes of section 2(2) of the European Communities Act 1972<sup>(2)</sup> in relation to measures relating to the assessment and management of ambient air quality and compliance with air quality limit values, target values and objectives and now exercisable by the Welsh Ministers<sup>(3)</sup>, and in exercise of the powers conferred by paragraph 1A of Schedule 2 to that Act<sup>(4)</sup>, make the following Regulations.

These Regulations make provision for a purpose mentioned in section 2(2) of the European Communities Act 1972 and it appears to the Welsh Ministers that it is expedient for references to Annexes I to VI and VIII to X and Section B of Annex XV to Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe and Section II of Annex II and Annexes III to V to 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 to be construed as references to those Annexes and those Sections as amended from time to time.

**PART 1**

General

**Title, commencement and application**

1.—(1) The title of these Regulations is the Air Quality Standards (Wales) Regulations 2010 and they come into force on 11 June 2010.

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(1) S.I. 2000/2812.

(2) 1972 c. 68.

(3) By virtue of section 162 of the Government of Wales Act 2006 (c. 32) and paragraphs 28 and 30 of Schedule 11 to that Act, the powers conferred upon the National Assembly for Wales by this designation are now exercisable by the Welsh Ministers.

(4) Paragraph 1A of Schedule 2 was inserted by section 28 of the Legislative and Regulatory Reform Act 2006 (c. 51).

(2) These Regulations apply in relation to Wales.

## Definitions

2.—(1) In these Regulations—

“ambient air” (“*aer amgylchynol*”) means outdoor air in the troposphere, excluding workplaces as defined by Council Directive [89/654/EEC](#)(5) where provisions concerning health and safety at work apply and to which members of the public do not have regular access;

“AOT 40” (“*AOT 40*”) (expressed in  $(\mu\text{g}/\text{m}^3) \cdot \text{hours}$ ) means the sum of the difference between hourly concentrations greater than  $80 \mu\text{g}/\text{m}^3$  (= 40 parts per billion) and  $80 \mu\text{g}/\text{m}^3$  over a given period using only the one-hour values measured between 08:00 hours and 20:00 hours Central European Time (CET) each day;

“arsenic” (“*arsenig*”), “cadmium” (“*cadmiwm*”), “nickel” (“*nicel*”) and “benzo(a)pyrene” (“*benso(a)pyren*”) mean the total content of those elements and compounds within the  $\text{PM}_{10}$  fraction;

“assessment” (“*asesu*”, “*asesiad*”) means assessment carried out by means of fixed measurements, indicative measurements, modelling or objective estimation techniques;

“Directive [2004/107/EC](#)” (“*Cyfarwyddeb 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);

“Directive [2008/50/EC](#)” (“*Cyfarwyddeb 2008/50/EC*”) means Directive [2008/50/EC](#) of the European Parliament and of the Council on ambient air quality and cleaner air for Europe(7);

“fixed measurements” (“*mesuriadau sefydlog*”) 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 measurements” (“*mesuriadau dangosol*”) means measurements which meet data quality objectives that are less strict than those required for fixed measurements;

“margin of tolerance” (“*ffin goddefiant*”) means the percentage of the limit value by which that value may be exceeded in a given year;

“oxides of nitrogen” (“*ocsidau 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 ( $\mu\text{g}/\text{m}^3$ );

“ $\text{PM}_{10}$ ” (“*PM<sub>10</sub>*”) means particulate matter which passes through a size-selective inlet as defined in the reference method for the sampling and measurement of  $\text{PM}_{10}$ , EN 12341, with a 50% efficiency cut-off at  $10 \mu\text{m}$  aerodynamic diameter;

“ $\text{PM}_{2.5}$ ” (“*PM<sub>2.5</sub>*”) means particulate matter which passes through a size-selective inlet as defined in the reference method for the sampling and measurement of  $\text{PM}_{2.5}$ , EN 14907, with a 50% efficiency cut-off at  $2.5 \mu\text{m}$  aerodynamic diameter;

“pollutant” (“*llygrydd*”) means any of the following—

- (a) arsenic,
- (b) benzene,
- (c) benzo(a)pyrene or other polycyclic aromatic hydrocarbons,
- (d) cadmium,

(5) OJ No L 393, 30.12.89, p. 1, amended by Directive [2007/30/EC](#) (OJ No L 165, 27.6.07, p. 21).

(6) OJ No L 23, 26.1.05, p 3, last amended by Regulation (EC) No [219/2009](#) (OJ No L 87, 31.3.09, p. 109).

(7) OJ No L 152, 11.6.08, p 1.

- (e) carbon monoxide,
- (f) lead,
- (g) mercury,
- (h) nickel,
- (i) nitrogen dioxide,
- (j) oxides of nitrogen,
- (k) ozone,
- (l) PM<sub>10</sub>,
- (m) PM<sub>2.5</sub>,
- (n) sulphur dioxide;

“polycyclic aromatic hydrocarbons” (“*hydrocarbonau aromatig polysyclig*”) means those organic compounds composed of at least two fused aromatic rings made entirely from carbon and hydrogen; and

“total deposition rate” (“*cyfradd llwyr ddyddodiaf*”) means the total mass of pollutants which is transferred from the atmosphere to surfaces such as soil, vegetation, water and buildings in a given area within a given time.

(2) References in these Regulations to Annexes I to VI and VIII to X and Section B of Annex XV to Directive [2008/50/EC](#) and to Section II of Annex II and Annexes III to V to Directive [2004/107/EC](#) are references to those Annexes and those Sections as amended from time to time.

### **Designation of competent authority**

3. The Welsh Ministers are designated as the competent authority for the purposes of Directive [2008/50/EC](#) (other than for the purpose specified in Article 3(f) of that Directive) and for the purposes of Directive [2004/107/EC](#).

### **Zones and agglomerations**

4.—(1) The Welsh Ministers must, for the purposes of these Regulations, divide the territory of Wales 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.

(3) In these Regulations references to a zone include 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,  
PM<sub>10</sub>, PM<sub>2.5</sub>, lead, benzene and carbon monoxide

### **Assessment thresholds**

5.—(1) The Welsh Ministers must classify each zone according to whether or not the upper or lower assessment thresholds specified in Section A of Annex II to Directive [2008/50/EC](#) are

exceeded in relation to sulphur dioxide, nitrogen dioxide and oxides of nitrogen, PM<sub>10</sub>, PM<sub>2.5</sub>, lead, benzene and carbon monoxide.

(2) The Welsh Ministers must review the classification of zones in paragraph (1) at least every five years, and must do so more frequently than every five years if there are significant changes in the activities which may affect levels of the pollutants referred to in paragraph (1) in ambient air.

(3) When reviewing the classification of zones in accordance with assessment thresholds, the Welsh Ministers must comply with Section B of Annex II to Directive [2008/50/EC](#).

### **Assessment requirements**

6.—(1) The Welsh Ministers must assess the level of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, PM<sub>10</sub>, PM<sub>2.5</sub>, lead, benzene and carbon monoxide in ambient air in each zone in accordance with paragraphs (2) to (4) and the criteria set out in Annex III to Directive [2008/50/EC](#).

(2) In zones where the level of any pollutant mentioned in paragraph (1) exceeds the upper assessment threshold for that pollutant referred to in regulation 5, fixed measurements must be used in relation to that pollutant, but may be supplemented by indicative measurements or modelling or both in order to provide adequate information on the spatial distribution of the ambient air quality.

(3) In zones where the level of any pollutant mentioned in paragraph (1) is at or between the upper and lower assessment thresholds for that pollutant referred to in regulation 5, fixed measurements must be used in relation to that pollutant but may be combined with indicative measurements or modelling or both.

(4) In zones where the level of any pollutant mentioned in paragraph (1) is below the lower assessment threshold for that pollutant referred to in regulation 5, modelling or objective estimation techniques or both may be used instead of measurement in relation to that pollutant.

(5) Where fixed measurements are supplemented by modelling or indicative measurements then the Welsh Ministers must take account of the results of those supplementary methods in carrying out the assessment referred to in paragraph (1).

(6) In addition to the assessment referred to in paragraph (1), the Welsh Ministers must measure PM<sub>2.5</sub> 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.

(7) For the purposes of paragraph (6), measurement must be carried out in accordance with the criteria set out in Annex IV to Directive [2008/50/EC](#) and must be coordinated with the monitoring strategy and measurement programme of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), where appropriate.

(8) The data quality objectives and requirements set out in Sections A and C of Annex I to Directive [2008/50/EC](#) must be applied in carrying out the assessment and measurement referred to in paragraphs (1) and (6).

(9) Save as provided for in paragraph (10), measurements under this regulation must be taken in accordance with the reference measurement methods specified in Section A and Section C of Annex VI to Directive [2008/50/EC](#).

(10) Alternative methods to those referred to in paragraph (9) may be used provided the conditions set out in Section B of Annex VI to Directive [2008/50/EC](#) are complied with.

(11) In this regulation, “chemical speciation concentrations” (“*crynodiadau ffurfiant rhywogaethau cemegol*”) means the concentrations of different chemical components or species of PM<sub>2.5</sub>.

### **Location and number of sampling points**

7.—(1) The Welsh Ministers must install sampling points in accordance with the criteria set out in Annex III to Directive [2008/50/EC](#) for the assessment of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, PM<sub>10</sub>, PM<sub>2.5</sub>, lead, benzene and carbon monoxide.

(2) In zones where fixed measurements are the sole source of information for the assessment of air quality in relation to any pollutant mentioned in paragraph (1), the number of sampling points for that pollutant must be greater than or equal to the minimum number specified in Section A of Annex V to Directive [2008/50/EC](#) for the purpose of assessing compliance with alert thresholds and limit values for the protection of human health.

(3) In zones other than agglomerations where fixed measurements are the sole source of information for the assessment of air quality in relation to sulphur dioxide or oxides of nitrogen, the number of sampling points for that pollutant must be greater than or equal to the minimum number specified in Section C of Annex V to Directive [2008/50/EC](#) for the purpose of assessing compliance with critical levels for the protection of vegetation.

(4) In zones where the information from fixed measurements is supplemented by information from modelling or indicative measurements or both—

(a) the number of sampling points specified in Section A of Annex V to Directive [2008/50/EC](#) may be reduced by up to 50% provided that the following conditions are met—

(i) the supplementary methods provide sufficient information for the assessment of air quality in relation to limit values and alert thresholds,

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

(iii) 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 Directive [2008/50/EC](#) and enable assessment results to meet the criteria in Section B of the same Annex; and

(b) the number of sampling points specified in Section C of Annex V to Directive [2008/50/EC](#) may be reduced by up to 50% provided that the assessed concentrations of the relevant pollutant can be established in accordance with the data quality objectives specified in Section A of Annex I to Directive [2008/50/EC](#).

(5) The Welsh Ministers must install at least one sampling point for the measurement of PM<sub>2.5</sub> in rural background locations.

## **CHAPTER 2**

### **Ozone**

#### **Assessment requirements**

8.—(1) The Welsh Ministers must assess the level of ozone in ambient air in each zone.

(2) The Welsh Ministers must ensure, for the purposes of paragraph (1), that fixed measurements are taken in any zone where the level of ozone has exceeded the long-term objectives specified in Schedule 3 during any of the five years preceding those measurements.

(3) In any zone where fixed measurements are supplemented by modelling or indicative measurements or both, the Welsh Ministers must take account of the results of those supplementary methods for the purposes of paragraph (1).

(4) The data quality objectives and requirements set out in Sections A and C of Annex I to Directive [2008/50/EC](#) must be applied in carrying out the assessment referred to in paragraph (1).

(5) Save as provided in paragraph (6), measurements for the purposes of paragraph (1) must be taken in accordance with the reference measurement methods specified in point 8 of Section A of Annex VI to Directive 2008/50/EC.

(6) Alternative methods to those referred to in paragraph (5) may be used provided the conditions set out in Section B of Annex VI to Directive 2008/50/EC are complied with.

### **Location and number of sampling points**

9.—(1) The Welsh Ministers must install sampling points in accordance with the criteria set out in Annex VIII to Directive 2008/50/EC for the assessment of ozone.

(2) In zones where fixed measurements are the sole source of information for the assessment of air quality, the number of sampling points must be greater than or equal to the minimum number specified in Section A of Annex IX to Directive 2008/50/EC.

(3) In zones where the level of ozone has been below the long-term objectives for each of the previous five years of measurement, the number of sampling points must be determined in accordance with the criteria set out in Section B of Annex IX to Directive 2008/50/EC.

(4) In zones where the information from fixed measurements is supplemented by information from modelling or indicative measurements or both, the number of sampling points referred to in paragraph (2) may be reduced provided that the following conditions are met—

- (a) the supplementary methods provide sufficient information for the assessment of air quality in relation to target values, long-term objectives and information and alert thresholds,
- (b) the number of sampling points to be installed and the spatial resolution of supplementary methods are sufficient for the level of ozone to be established in accordance with the data quality objectives set out in Section A of Annex I to Directive 2008/50/EC and to enable assessment results to meet the criteria specified in Section B of the same Annex,
- (c) there is at least one sampling point in each zone, with a minimum of one sampling point per two million inhabitants or one sampling point per 50,000 km<sup>2</sup>, whichever produces the greater number of sampling points, and
- (d) nitrogen dioxide is measured at all remaining sampling points except those that are rural background stations.

(5) The Welsh Ministers must ensure that nitrogen dioxide is measured at no less than 50% of the sampling points required under Section A of Annex IX to Directive 2008/50/EC.

(6) The measurement referred to in paragraph (5) must be continuous except at rural background stations.

(7) In this regulation, “rural background stations” (“*gorsafoedd cefndir gwledig*”) has the meaning given by Section A of Annex VIII to Directive 2008/50/EC.

## **CHAPTER 3**

Arsenic, cadmium, mercury, nickel, benzo(a)pyrene and other polycyclic aromatic hydrocarbons

### **Assessment thresholds**

10.—(1) The Welsh Ministers must classify each zone according to whether or not the upper or lower assessment thresholds specified in Section I of Annex II to Directive 2004/107/EC are exceeded in relation to arsenic, cadmium, nickel and benzo(a)pyrene.

(2) The Welsh Ministers must review the classification of zones in paragraph (1) at least every five years, and must do so more frequently than every five years if there are significant changes in the activities which may affect levels of the pollutants referred to in paragraph (1) in ambient air.

(3) When reviewing the classification of zones in accordance with assessment thresholds, the Welsh Ministers must comply with Section II of Annex II to Directive [2004/107/EC](#).

### **Assessment requirements**

**11.**—(1) The Welsh Ministers must assess the level of arsenic, cadmium, nickel and benzo(a)pyrene in ambient air in each zone in accordance with paragraphs (2) to (4).

(2) In zones where the level of any pollutant mentioned in paragraph (1) exceeds the upper assessment threshold for that pollutant referred to in regulation 10, fixed measurements must be used in relation to that pollutant, but may be supplemented by modelling in order to provide an adequate level of information on ambient air quality.

(3) In zones where the level of any pollutant mentioned in paragraph (1) is between the upper and lower assessment thresholds for that pollutant referred to in regulation 10 over a representative period, fixed measurements must be used in relation to that pollutant but may be combined with indicative measurements as referred to in Section I of Annex IV to Directive [2004/107/EC](#) or modelling, or both.

(4) In zones where the level of any pollutant mentioned in paragraph (1) is below the lower assessment threshold for that pollutant referred to in regulation 10, modelling or objective estimation techniques or both may be used instead of measurement in relation to that pollutant.

(5) In addition to the assessment referred to in paragraphs (1) to (4), the Welsh Ministers must monitor concentrations of other relevant polycyclic aromatic hydrocarbons in addition to benzo(a)pyrene as the Welsh Ministers think fit, including at least the following—

- (a) benzo(a)anthracene,
- (b) benzo(b)fluoranthene,
- (c) benzo(j)fluoranthene,
- (d) benzo(k)fluoranthene,
- (e) indeno(1,2,3-cd)pyrene,
- (f) dibenz(a,h)anthracene.

(6) The Welsh Ministers must, in addition, operate background sampling points to provide indicative measurements of—

- (a) the concentrations of arsenic, cadmium, nickel, total gaseous mercury, benzo(a)pyrene and the other polycyclic aromatic hydrocarbons referred to in paragraph (5) in ambient air, and
- (b) the total deposition rates of arsenic, cadmium, mercury, nickel, benzo(a)pyrene and the other polycyclic aromatic hydrocarbons referred to in paragraph (5).

(7) Measurements for the purposes of paragraph (6) must be coordinated with the monitoring strategy and measurement programme of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), where appropriate.

(8) The data quality objectives and requirements set out in Annex IV to Directive [2004/107/EC](#) must be applied in carrying out the assessments referred to in paragraphs (1), (5) and (6).

(9) Measurements in this regulation must be taken in accordance with the reference measurement methods specified in Annex V to Directive [2004/107/EC](#).

(10) In this regulation, “total gaseous mercury” (“*mercwri nwyol llwyr*”) means elemental mercury vapour (Hg<sub>0</sub>) and reactive gaseous mercury, being water-soluble mercury species with sufficiently high vapour pressure to exist in the gas phase.

**Location and number of sampling points and monitoring sites**

12.—(1) The Welsh Ministers must install sampling points in accordance with the criteria set out in Sections I, II and IV of Annex III to Directive [2004/107/EC](#) for the assessment of arsenic, cadmium, nickel and benzo(a)pyrene.

(2) The Welsh Ministers must ensure that monitoring sites for polycyclic aromatic hydrocarbons other than benzo(a)pyrene—

- (a) are located together with sampling points for benzo(a)pyrene,
- (b) are located in accordance with the criteria set out in Sections I to III of Annex III to Directive [2004/107/EC](#), and
- (c) are selected so that geographical variations and long-term trends in the concentrations of polycyclic aromatic hydrocarbons can be identified.

(3) The Welsh Ministers must ensure that—

- (a) at least one background sampling point is installed to provide indicative measurements for the purposes of paragraph (6) of regulation 11,
- (b) such background sampling points are located in accordance with the criteria set out in Sections I to III of Annex III to Directive [2004/107/EC](#), and
- (c) such background sampling points are selected so that geographical variations and long-term trends in the concentrations and total deposition rates of the relevant pollutants can be identified.

## PART 3

### Duties of Welsh Ministers in relation to limit values etc.

**Duty in relation to limit values**

13.—(1) Subject to paragraph (2), the Welsh Ministers must ensure that levels of sulphur dioxide, nitrogen dioxide, benzene, carbon monoxide, lead, PM<sub>10</sub> and PM<sub>2.5</sub> do not exceed the limit values set out in Schedule 1 in any zone.

(2) Where the date for achieving the limit values for nitrogen dioxide is postponed in any zone in accordance with regulation 15(2), the Welsh Ministers must ensure that the level of nitrogen dioxide in that zone does not exceed the limit value for that pollutant set out in Schedule 1 by more than 50%.

(3) In zones where the level of any pollutant mentioned in paragraph (1) is below the limit value set out in Schedule 1 for that pollutant, the Welsh Ministers must ensure that the level of that pollutant is maintained below that limit value and must endeavour to maintain the best ambient air quality compatible with sustainable development.

(4) Where the Commission has been informed, in accordance with Article 20 of Directive [2008/50/EC](#), that the exceedance of any limit value mentioned in paragraph (1) is attributable to natural sources, that exceedance is not to be regarded as an exceedance for the purposes of these Regulations.

**Duty in relation to target values**

14.—(1) The Welsh Ministers must ensure that all necessary measures not entailing disproportionate costs are taken to ensure that levels of PM<sub>2.5</sub>, ozone, arsenic, cadmium, nickel and benzo(a)pyrene do not exceed the target values in Schedule 2 in any zone.



(2) The Welsh Ministers must draw up a list of all zones where the levels of arsenic, cadmium, nickel or benzo(a)pyrene are below the target values set out in Schedule 2 for those pollutants.

(3) In relation to zones listed under paragraph (2), the Welsh Ministers must ensure that the level of any pollutant that is below its target value is maintained below that target value and must endeavour to maintain the best ambient air quality compatible with sustainable development.

(4) The Welsh Ministers must draw up a list of all zones where the target values for arsenic, cadmium, nickel or benzo(a)pyrene are exceeded.

(5) In relation to zones listed under paragraph (4), the Welsh Ministers must—

- (a) identify the areas where the target values are exceeded and the sources contributing to those exceedances; and
- (b) ensure that the measures taken in accordance with paragraph (1) are directed at the predominant sources of emission which have been identified and that those measures apply, where relevant, the best available techniques in accordance with Directive [2008/1/EC](#)<sup>(8)</sup>.

(6) In zones where the level of ozone exceeds the target value set out in Schedule 2 for that pollutant, the Welsh Ministers must ensure that the programme prepared pursuant to Article 6 of Directive [2001/81/EC](#) is implemented to attain the target value, unless this value cannot be achieved other than through measures that would entail disproportionate costs.

(7) In this regulation—

“Directive [2001/81/EC](#)” (“*Cyfarwyddeb 2001/81/EC*”) means Directive [2001/81/EC](#) of the European Parliament and of the Council on national emission ceilings for certain atmospheric pollutants<sup>(9)</sup>; and

“Directive [2008/1/EC](#)” (“*Cyfarwyddeb 2008/1/EC*”) means Directive [2008/1/EC](#) of the European Parliament and of the Council on integrated pollution prevention and control.

### **Date of application for limit values and target values**

**15.**—(1) Subject to paragraph (2), limit values and target values apply—

- (a) from the date specified for each limit value or target value concerned in Schedules 1 or 2, or
- (b) when these Regulations come into force, if no date is specified in those Schedules.

(2) Where the European Commission has been notified, in accordance with Article 22 of Directive [2008/50/EC](#), that conformity with the limit values for nitrogen dioxide in Schedule 1 cannot be achieved by the date specified in paragraph (1) in a particular zone, the date for achieving those limit values in that zone may be postponed by a maximum of five years, provided that—

- (a) the Welsh Ministers have prepared an air quality plan for nitrogen dioxide in the zone to which the notification relates in accordance with regulation 20, together with the information listed in Section B of Annex XV to that Directive, and have demonstrated that conformity with the limit values for that pollutant will be achieved in that zone before the date to which the application of those limit values has been postponed, and
- (b) the Commission has raised no objections under Article 22 of that Directive to the postponement of the application of those limit values to that later date.

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<sup>(8)</sup> OJ No L 24, 24.1.08, p. 8, amended by Directive [2009/31/EC](#) (OJ No L 140, 5.6.09, p. 114).

<sup>(9)</sup> OJ No L 309, 27.11.09, p. 22, last amended by Regulation [\(EC\) No 219/2009](#) (OJ No L 87, 31.3.09, p. 109).

**Duty in relation to long-term objectives for ozone**

16.—(1) The Welsh Ministers must ensure that all necessary measures not entailing disproportionate costs are taken to attain the long-term objectives for ozone set out in Schedule 3 in each zone.

(2) Measures taken pursuant to paragraph (1) must be consistent with the programme referred to in paragraph (6) of regulation 14 and the air quality plans prepared in accordance with regulation 20.

(3) In zones where the long-term objectives for ozone have been attained, the Welsh Ministers must, insofar as factors including meteorological conditions and the transboundary nature of ozone pollution permit—

- (a) ensure that they continue to be met,
- (b) maintain the best ambient air quality compatible with sustainable development, and
- (c) maintain a high level of protection for the environment and human health.

**Duty in relation to information and alert thresholds for the protection of human health**

17. Where any of the information or alert thresholds set out in Schedule 4 are exceeded in any zone, the Welsh Ministers must inform the public by means of radio, television, newspapers or the internet.

**Duty in relation to critical levels for the protection of vegetation**

18. The Welsh Ministers must ensure that the critical levels set out in Schedule 5 are not exceeded in any zone.

## PART 4

### National exposure reduction for PM<sub>2.5</sub>

**Duty of the Welsh Ministers to limit exposure to PM<sub>2.5</sub>**

19.—(1) The Welsh Ministers must ensure that all necessary measures not entailing disproportionate costs are taken to reduce exposure to PM<sub>2.5</sub> with a view to attaining the national exposure reduction target by 2020.

(2) The Welsh Ministers must ensure that all appropriate measures are taken with a view to ensuring that the average exposure indicator for 2015 does not exceed 20 µg/m<sup>3</sup>.

(3) In this regulation—

“average exposure indicator” (*“dangosydd cysylltiad cyfartaleddog”*) means the indicator for PM<sub>2.5</sub> calculated by the Secretary of State in accordance with regulation 23 of the Air Quality Standards Regulations 2010<sup>(10)</sup>; and

“national exposure reduction target” (*“targed cenedlaethol ar gyfer lleihau cysylltiad”*) means the target for PM<sub>2.5</sub> established by the Secretary of State in accordance with regulation 24 of those Regulations.

## PART 5

### Plans

#### Air quality plans

**20.**—(1) Where the level of sulphur dioxide, nitrogen dioxide, benzene, carbon monoxide, lead or PM<sub>10</sub> in ambient air exceeds any of the limit values in Schedule 1 in any zone, or where the level of PM<sub>2.5</sub> in ambient air exceeds the relevant target value in Schedule 2 in any zone, then, subject to paragraph (2), the Welsh Ministers must draw up and implement an air quality plan to achieve the relevant limit value or target value in that zone.

(2) Where the Welsh Ministers have designated zones within which limit values for PM<sub>10</sub> are exceeded due to the re-suspension of particulates following winter sanding or salting, in accordance with Article 21 of Directive [2008/50/EC](#), the Welsh Ministers' duty under paragraph (1) applies to those zones only in so far as the exceedances of those limit values are attributable to PM<sub>10</sub> sources other than winter sanding or salting.

(3) Where the level of ozone in ambient air exceeds any of the target values for ozone in Schedule 2 in any zone, the Welsh Ministers must, if appropriate, draw up and implement an air quality plan to achieve the relevant target value unless the measures necessary to achieve that target value would entail disproportionate cost.

(4) An air quality plan under paragraph (1) or (3) must include measures intended to ensure compliance with any relevant limit value within the shortest possible time.

(5) If, at any time before 31 December 2014, the level of PM<sub>2.5</sub> in ambient air in any zone exceeds the level calculated by applying the margin of tolerance for that pollutant in Schedule 1 to the relevant limit value in that Schedule, the Welsh Ministers must draw up and implement an air quality plan to achieve that limit value in that zone.

(6) An air quality plan must include the information listed in Schedule 6.

(7) Wherever possible, an air quality plan must be consistent with other plans drawn up in accordance with obligations imposed under—

- (a) Directive [2001/80/EC](#) of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from large combustion plants<sup>(11)</sup>,
- (b) Directive [2001/81/EC](#) of the European Parliament and of the Council on national emission ceilings for certain atmospheric pollutants, and
- (c) Directive [2002/49/EC](#) of the European Parliament and of the Council on assessment and management of environmental noise<sup>(12)</sup>.

(8) Where an air quality plan is required in relation to more than one pollutant in any zone, the Welsh Ministers must, where appropriate, draw up and implement an integrated plan for that zone in relation to all pollutants concerned.

#### Short-term action plans

**21.**—(1) Where, in any zone, there is a risk that the level of sulphur dioxide or nitrogen dioxide will exceed one or more of the alert thresholds set out in Schedule 4, the Welsh Ministers must draw up and implement a short-term action plan.

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<sup>(11)</sup> OJ No L 309, 27.11.01, p. 1, last amended by Directive [2009/31/EC](#) (OJ No L 140, 5.6.09, p. 114).

<sup>(12)</sup> OJ No L 189, 18.7.02, p. 12, last amended by Regulation [\(EC\) No 1137/2008](#) (OJ No L 311, 21.11.08, p. 1).

(2) A short-term action plan must set out the measures intended to reduce the risk of the alert thresholds being exceeded, or, in the event of those thresholds being exceeded, to reduce the duration of such an incident.

(3) Where, in any zone, the level of ozone exceeds the alert threshold set out in Schedule 4 or there is a risk that it will exceed that threshold, the Welsh Ministers must draw up and implement a short-term action plan taking into account Decision [2004/279/EC\(13\)](#), if of the opinion that it is reasonably likely that the risk, severity or duration of such an incident can be reduced taking into account geographical, meteorological and economic conditions.

(4) For the purposes of paragraph (3), the level must exceed or be predicted to exceed the alert threshold for at least three consecutive hours.

(5) Short-term action plans may also be drawn up where there is a risk that any of the limit values or target values set out in Schedules 1 and 2 will be exceeded.

### **Public participation in drawing up air quality and short-term action plans**

**22.**—(1) The Welsh Ministers must consult the public where the Welsh Ministers propose to prepare, modify or review an air quality plan or a short-term action plan.

(2) Where paragraph (1) applies, the Welsh Ministers must—

- (a) inform the public as to the proposal, any relevant background information and the right of the public to participate in the drawing up of the plan,
- (b) specify the means by which the public can participate in the consultation, including an address for responses, and a reasonable timescale for the consultation, and
- (c) take account of the results of the consultation in drawing up the plan.

(3) When the plan is published, the Welsh Ministers must also provide information to the public as to the reasons for the contents of the plan together with information about the public participation process that has been carried out.

## **PART 6**

### **Public information**

#### **Public information**

**23.**—(1) The Welsh Ministers must make the following available to the public and appropriate interested organisations—

- (a) a map identifying the zones established under regulation 4;
- (b) up-to-date information given on at least a daily basis, and if possible on an hourly basis on levels of sulphur dioxide, nitrogen dioxide, PM<sub>10</sub>, ozone, carbon monoxide and, if possible, PM<sub>2.5</sub>;
- (c) up-to-date information on levels of benzene and lead, presented as an average over the last twelve months, and updated every three months or if possible every month;
- (d) up-to-date information as to any postponement of the date by which limit values for nitrogen dioxide are to be achieved pursuant to paragraph (2) of regulation 15;
- (e) up-to-date information about cases where the limit values, target values or long-term objectives for sulphur dioxide, nitrogen dioxide, benzene, lead, PM<sub>10</sub>, PM<sub>2.5</sub>, carbon monoxide and ozone set out in Schedules 1 to 3 have been exceeded, together with the

reasons for such cases and appropriate information regarding effects on health and the environment;

- (f) up-to-date information about actual or predicted exceedances of the alert or information thresholds for sulphur dioxide, nitrogen dioxide and ozone set out in Schedule 4, together with the reasons for such cases and appropriate information regarding effects on health;
- (g) up-to-date information about cases where the critical values for oxides of nitrogen and sulphur dioxide set out in Schedule 5 have been exceeded, together with the reasons for such cases and appropriate information regarding effects on the environment;
- (h) up-to-date information on concentrations and total deposition rates of arsenic, cadmium, nickel, mercury, benzo(a)pyrene and other polycyclic aromatic hydrocarbons;
- (i) up-to-date information about cases where target values for arsenic, cadmium, nickel and benzo(a)pyrene have been exceeded, together with reasons for such cases, the area concerned, and appropriate information regarding effects on health and the environment;
- (j) information on measures taken to achieve target values for arsenic, cadmium, nickel and benzo(a)pyrene;
- (k) air quality plans; and
- (l) short-term action plans, together with the results of the Welsh Ministers' investigations into the feasibility and content of those plans and information on their implementation.

(2) The information in paragraph (1)(f) must be made available in accordance with Schedule 7.

(3) Information must be distributed free of charge in a clear and comprehensible manner via any easily accessible media including the internet or other appropriate means of telecommunication and take into account the requirements of Directive [2007/2/EC](#) of the European Parliament and of the Council on establishing an infrastructure for spatial information in the European Community<sup>(14)</sup>.

(4) For the purposes of this Part, “interested organisations” includes, in particular, environmental organisations, consumer organisations, organisations representing sensitive populations, relevant healthcare bodies and industrial federations.

### **Annual reports**

**24.**—(1) The Welsh Ministers must publish annual reports for all the pollutants.

(2) Annual reports must contain the following information—

- (a) details of all cases where levels of pollutants have exceeded limit values, target values, long-term objectives and information and alert thresholds set out in Schedules 1 to 4 for the relevant averaging periods; and
- (b) a summary assessment of the effects of these cases.

(3) Annual reports may contain further information where appropriate, including assessments on forest protection and information as to ozone precursor substances listed in Section B of Annex X to Directive [2008/50/EC](#) as the Welsh Ministers think appropriate.

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(14) OJ No L 108, 25.4.07, p. 1.

## **PART 7**

### Revocations

#### **Revocations**

- 25.** The Air Quality Standards (Wales) Regulations 2007(**15**) are revoked.

16 May 2010

*Jane Davidson*  
Minister for Environment, Sustainability and  
Housing, one of the Welsh Ministers

## SCHEDULE 1

Regulations 13, 15, 20(1), (2), (4) and (5),  
21(5), 23(1) and 24(2)

## Limit values

**Sulphur dioxide**

<i>Averaging period</i>	<i>Limit value</i>
One hour	350 µg/m <sup>3</sup> , not to be exceeded more than 24 times a calendar year
One day	125 µg/m <sup>3</sup> , not to be exceeded more than 3 times a calendar year

**Nitrogen dioxide**

<i>Averaging period</i>	<i>Limit value</i>
One hour	200 µg/m <sup>3</sup> , not to be exceeded more than 18 times a calendar year
Calendar year	40 µg/m <sup>3</sup>

**Benzene**

<i>Averaging period</i>	<i>Limit value</i>
Calendar year	5 µg/m <sup>3</sup>

**Carbon monoxide**

<i>Averaging period</i>	<i>Limit value</i>
Maximum daily eight hour mean(16)	10 mg/m <sup>3</sup>

**Lead**

<i>Averaging period</i>	<i>Limit value</i>
Calendar year	0.5 µg/m <sup>3</sup>

**PM<sub>10</sub>**

<i>Averaging period</i>	<i>Limit value</i>
One day	50 µg/m <sup>3</sup> , not to be exceeded more than 35 times a calendar year
Calendar year	40 µg/m <sup>3</sup>

(16) The maximum daily eight hour mean concentration of carbon monoxide must be selected by examining eight hour running averages, calculated from hourly data and updated each hour. Each eight hour average so calculated must be assigned to the day on which it ends, that is, the first calculation period for any one day will be from 17:00 on the previous day to 01:00 on that day, and the last calculation period for any one day will be the period from 16:00 to 24:00 on that day.

**Status:** This is the original version (as it was originally made).

### PM<sub>2.5</sub>

<i>Averaging period</i>	<i>Limit value</i>	<i>Margin of tolerance</i>	<i>Date by which limit value is to be met</i>
Calendar year	25 µg/m <sup>3</sup>	20% on 11 June 2008, decreasing on the next 1 January and every 12 months thereafter by equal annual percentages to reach 0% by 1 January 2015	1 January 2015

### SCHEULE 2

Regulations 14, 20(1) and (3), 21(5), 23(1) and, 24(2)

### Target values

#### Arsenic, cadmium, nickel and benzo(a)pyrene

<i>Pollutant</i>	<i>Target value for the total content in the PM<sub>10</sub> fraction averaged over a calendar year</i>	<i>Date by which target value should be met</i>
Arsenic	6 ng/m <sup>3</sup>	31 December 2012
Cadmium	5 ng/m <sup>3</sup>	31 December 2012
Nickel	20 ng/m <sup>3</sup>	31 December 2012
Benzo(a)pyrene	1 ng/m <sup>3</sup>	31 December 2012

### Ozone

<i>Objective</i>	<i>Averaging period</i>	<i>Target value</i>
Protection of human health	Maximum daily eight hour mean <sup>(17)</sup>	120 µg/m <sup>3</sup> , not to be exceeded on more than 25 days per calendar year averaged over three years <sup>(18)</sup>

(17) The maximum daily eight hour mean concentration must be selected by examining eight hour running averages, calculated from hourly data and updated each hour. Each eight hour average so calculated must be assigned to the day on which it ends, that is, the first calculation period for any one day will be the period from 17:00 on the previous day to 01:00 on that day, and the last calculation period for any one day must be the period from 16:00 to 24:00 on that day.

(18) If the three or five year averages cannot be determined on the basis of a full and consecutive set of annual data, the minimum annual data required for checking compliance with the target values will be valid data for one year in relation to the target value for the protection of human health and valid data for three years in relation to the target value for the protection of vegetation.



<i>Objective</i>	<i>Averaging period</i>	<i>Target value</i>
Protection of vegetation	May to July	AOT 40 (calculated from 1h values) 18,000 $\mu\text{g}/\text{m}^3 \cdot \text{h}$ averaged over five years <b>(18)</b>

**PM<sub>2.5</sub>**

<i>Averaging period</i>	<i>Target value</i>
Calendar year	25 $\mu\text{g}/\text{m}^3$

**SCHEDULE 3**

Regulations 8(2), 16, 23(1), 24(2)

## Long-term objectives for ozone

<i>Objective</i>	<i>Averaging period</i>	<i>Long-term objective</i>	<i>Date by which long-term objective should be met</i>
Protection of human health	Maximum daily eight hour mean within a calendar year	120 $\mu\text{g}/\text{m}^3$	Not defined
Protection of vegetation	May to July	AOT 40 (calculated from 1h values) 6000 $\mu\text{g}/\text{m}^3 \cdot \text{h}$	Not defined

**SCHEDULE 4**

Regulations 17, 21(1) and (3), 23(1) and 24(2)

## Information and alert thresholds

**Alert thresholds for sulphur dioxide and nitrogen dioxide**

<i>Pollutant</i>	<i>Alert threshold(19)</i>
Sulphur dioxide	500 $\mu\text{g}/\text{m}^3$
Nitrogen dioxide	400 $\mu\text{g}/\text{m}^3$

(18) If the three or five year averages cannot be determined on the basis of a full and consecutive set of annual data, the minimum annual data required for checking compliance with the target values will be valid data for one year in relation to the target value for the protection of human health and valid data for three years in relation to the target value for the protection of vegetation.

(19) To be measured over three consecutive hours at locations representative of air quality over at least 100 km<sup>2</sup> or an entire zone, whichever is smaller.

**Status:** This is the original version (as it was originally made).

### Information and alert thresholds for ozone

<i>Purpose</i>	<i>Averaging period</i>	<i>Threshold</i>
Information	1 hour	180 µg/m <sup>3</sup>
Alert	1 hour	240 µg/m <sup>3</sup>

### SCHEDULE 5

Regulations 18 and 23(1)

Critical levels for the protection of vegetation

#### Sulphur dioxide

<i>Averaging period</i>	<i>Critical level</i>
Calendar year and winter (1 October to 31 March)	20 µg/m <sup>3</sup>

#### Oxides of nitrogen

<i>Averaging period</i>	<i>Critical level</i>
Calendar year	30 µg/m <sup>3</sup> NO <sub>x</sub>

### SCHEDULE 6

Regulation 20(6)

Information to be included in air quality plans

1. Location of excess pollution—
  - (a) region;
  - (b) city (map); and
  - (c) measuring station (map, geographical co-ordinates).
2. General information—
  - (a) type of zone (city, industrial or rural area);
  - (b) estimate of the polluted area (km<sup>2</sup>) and of the population exposed to the pollution;
  - (c) useful climatic data;
  - (d) relevant data on topography; and
  - (e) sufficient information on the type of targets requiring protection in the zone.
3. Responsible authorities (names and addresses of persons responsible for the development and implementation of air quality plans).
4. Nature and assessment of pollution—
  - (a) concentrations observed over previous years (before the implementation of the improvement measures);
  - (b) concentrations measured since the beginning of the project; and

- (c) techniques used for the assessment.
- 5. Origin of pollution—
  - (a) list of the main emission sources responsible for the pollution (map);
  - (b) total quantity of emissions from these sources (tonnes per year); and
  - (c) information on pollution imported from other regions.
- 6. Analysis of the situation—
  - (a) details of those factors responsible for the exceedance of the limit value or target value; and
  - (b) details of possible measures for the improvement of air quality.
- 7. Details of those measures or projects for improvement which existed prior to 11 June 2008—
  - (a) local, regional, national and international measures; and
  - (b) observed effects of those measures.
- 8. Details of those measures or projects adopted with a view to reducing pollution following 11 June 2008—
  - (a) list and description of all the measures set out in the project;
  - (b) timetable for implementation; and
  - (c) estimate of the improvement of air quality planned and of the expected time required to attain these objectives.
- 9. Details of the measures or projects planned or being researched for the long term.
- 10. List of the publications, documents and work etc. used to supplement information required by this Schedule.

## SCHEDULE 7

Regulation 23(2)

### Public information in relation to alert and information thresholds for nitrogen dioxide, sulphur dioxide and ozone

- 1. In cases where either the information or the alert threshold for nitrogen dioxide, sulphur dioxide or ozone in Schedule 4 is exceeded the details set out in paragraphs 3 to 6, as a minimum, must be made available to the public.
- 2. In cases where either the information or the alert threshold for one of those pollutants in Schedule 4 is predicted to be exceeded, the information set out in paragraphs 3 to 6 must be provided where practicable, as though references to exceedances in those paragraphs were references to predicted exceedances.
- 3. Information on any incident where information or alert thresholds have been exceeded—
  - (a) the location or area where thresholds have been exceeded;
  - (b) the type of threshold exceeded (information or alert threshold);
  - (c) the time at which the threshold was exceeded and the duration of the incident; and
  - (d) in the case of ozone, the highest one hour and eight hour concentration.
- 4. Forecast for the following afternoon, day and days—
  - (a) the geographical area in which it is expected that an information or alert threshold will be exceeded; and

- (b) the expected change in pollution, that is, improvement, stabilisation or deterioration, and the reasons for that change.
5. Information on the type of population concerned, possible health effects and recommended conduct, in particular—
- (a) information on the population groups at risk;
  - (b) description of likely symptoms;
  - (c) recommended precautions to be taken by the population concerned; and
  - (d) where to find further information.
6. Information on the following additional matters—
- (a) information on preventive action to reduce pollution or exposure to it;
  - (b) an indication of the main source sectors; and
  - (c) recommendations for action to reduce emissions.
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## EXPLANATORY NOTE

*(This note is not part of the Regulations)*

These Regulations implement the following Directives—

- (i) Directive [2008/50/EC](#) on ambient air quality and cleaner air for Europe. (This Directive replaces Council Directive [96/62/EC](#) on ambient air quality assessment and management, Council Directive [1999/30/EC](#) relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air, Council Directive [2000/69/EC](#) relating to limit values for benzene and carbon monoxide in ambient air, and Council Directive [2002/3/EC](#) relating to ozone in ambient air); and
- (ii) Directive [2004/107/EC](#) relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

These Regulations replace the Air Quality Standards (Wales) Regulations 2007 (S.I.[2007/717 \(W.63\)](#)), which are revoked by these Regulations.

These Regulations apply in relation to Wales.

Part 1 of the Regulations deals with definitions and designates the Welsh Ministers as the competent authority for the purposes of Directive [2008/50/EC](#) (other than for the purpose of cooperation with other Member States and the European Commission) and for the purposes of Directive [2004/107/EC](#). It also requires the Welsh Ministers to divide Wales into zones and agglomerations for the purposes of these Regulations.

Part 2 of the Regulations deals with the assessment of ambient air quality. Chapter 1 relates to the assessment of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, benzene and carbon monoxide, Chapter 2 relates to the assessment of ozone, and Chapter 3 relates to the assessment of arsenic, cadmium, mercury, nickel, benzo(a)pyrene and other polycyclic aromatic hydrocarbons.

Part 3 of the Regulations sets out the duties of the Welsh Ministers in relation to the limit values, target values, long-term objectives, information and alert thresholds and critical levels for the above pollutants which are set out in Schedules 1 to 5.

Part 4 of the Regulations sets out the Welsh Ministers' additional duties in relation to the type of particulate matter known as PM<sub>2.5</sub>. These duties relate to the attainment of the national exposure reduction target for PM<sub>2.5</sub> in the United Kingdom and compliance with the limit on the average exposure indicator for 2015.

Part 5 of the Regulations imposes certain requirements on the Welsh Ministers to draw up air quality plans in relation to limit values and target values and short-term action plans in relation to alert thresholds. Short-term action plans may also be drawn up in relation to limit values and target values in certain circumstances.

Part 6 of the Regulations relates to public information.

Schedules 1 to 5 set out limit values, target values, long-term objectives, information and alert thresholds and critical levels for the pollutants to which these Regulations apply.

Schedule 6 sets out the information to be included in air quality plans.

Schedule 7 sets out the public information to be provided where information thresholds are exceeded or are predicted to be exceeded.

References in these Regulations to Annexes I to VI and VIII to X and Section B of Annex XV to Directive [2008/50/EC](#) and to Section II of Annex II and Annexes III to V to Directive [2004/107/EC](#) are to be read as references to those Annexes and those Sections as amended from time to time.

A full impact assessment of the effect that this instrument and corresponding instruments in other parts of the United Kingdom will have on the costs of business and the voluntary sector is available from the Atmosphere and Local Environment Programme, Department for Environment, Food and Rural Affairs, Ergon House, Horseferry Road, London, SW1P 3JR.