2010 No. 1001

The Air Quality Standards Regulations 2010

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

5.—(1) The Secretary of State 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, particulate matter, lead, benzene and carbon monoxide.

(2) The Secretary of State must review the classification of zones carried out in accordance with 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 sulphur dioxide, nitrogen dioxide or oxides of nitrogen, particulate matter, lead, benzene or carbon monoxide in ambient air.

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

Assessment criteria

6.—(1) The Secretary of State must 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 5, fixed measurements must 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 5, 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 Secretary of State must 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 must be carried out in accordance with the criteria set out in sections A and C of Annex I to Directive 2008/50/EC, and for the purposes

of paragraph (5), measurements must be carried out in accordance with the criteria set out in Annex IV to the same Directive.

(7) Save as provided for in paragraph (8), measurements for the purposes of 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.

(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 Secretary of State must take account of the results of those supplementary methods in assessing ambient air quality for the purposes of these Regulations.

(10) In this Regulation, "chemical speciation concentrations" means the concentrations of different chemical components or species of $PM_{2.5}$.

Location and number of sampling points

7.—(1) The Secretary of State must 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 Directive 2008/50/EC 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 number of sampling points must be more 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 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 Directive 2008/50/ EC 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 Secretary of State must install a sampling point for every 100,000 km².