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SCOTTISH STATUTORY INSTRUMENTS

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**2010 No. 204**

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

**PART 2**

Assessment of ambient air quality

CHAPTER 3

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

**Assessment thresholds**

**10.**—(1) The Scottish Ministers must classify each zone according to whether or not the upper and 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 Scottish Ministers 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 the pollutants referred to in paragraph (1) in ambient air.

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

**Assessment criteria**

**11.**—(1) The Scottish Ministers must assess concentrations of arsenic, cadmium, nickel and benzo(a)pyrene in ambient air in all zones.

(2) In zones where the level of any pollutant mentioned in paragraph (1) is above the upper assessment threshold for that pollutant, fixed measurements must be used in relation to that pollutant but may be supplemented by modelling techniques 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 above the lower assessment threshold but below the upper assessment threshold for that pollutant, fixed measurements must be used in relation to that pollutant but may be supplemented by indicative measurements as referred to in Section I of Annex IV to Directive [2004/107/EC](#) or modelling, or both, to assess the level of these pollutants in ambient air.

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

**Location and number of sampling points**

**12.** The Scottish Ministers must determine the location and number of sampling points for the assessment of arsenic, cadmium, nickel and benzo(a)pyrene in accordance with Annex III to Directive [2004/107/EC](#).

### Monitoring of polycyclic aromatic hydrocarbons

13.—(1) The Scottish Ministers must monitor concentrations of other relevant polycyclic aromatic hydrocarbons in addition to benzo(a)pyrene as they 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; and
- (f) dibenz(a,h)anthracene.

(2) Monitoring sites must be located together with sampling points for benzo(a)pyrene.

(3) Monitoring sites must be selected so that geographical variations and long term trends in the concentrations of polycyclic aromatic hydrocarbons can be identified.

(4) Monitoring sites must be selected in accordance with the criteria in Sections I to III of Annex III to Directive [2004/107/EC](#).

### Background monitoring

14.—(1) The Scottish Ministers must operate background sampling points to provide the indicative measurements of—

- (a) concentrations of—
  - (i) arsenic, cadmium, nickel and benzo(a)pyrene;
  - (ii) the polycyclic aromatic hydrocarbons referred to in paragraph (1) of regulation 13;
  - (iii) total gaseous mercury.
- (b) total depositions of—
  - (i) arsenic, cadmium, nickel and benzo(a)pyrene within the PM<sub>10</sub> fraction;
  - (ii) the polycyclic aromatic hydrocarbons referred to in paragraph (1) of regulation 13;
  - (iii) mercury.

(2) For the purposes of paragraph (1) the Scottish Ministers must ensure that—

- (a) at least one sampling point is installed for every 100,000 km<sup>2</sup>; and
- (b) each sampling point is located in accordance with Sections I to III of Annex III to Directive [2004/107/EC](#).

### Data quality objectives

15. When assessing levels of arsenic, cadmium, nickel, benzo(a)pyrene and other polycyclic aromatic hydrocarbons and total gaseous mercury, the Scottish Ministers must apply the data quality objectives and other standards contained in Annex IV to Directive [2004/107/EC](#).

### Reference methods for sampling and analysis

16. Measurements of arsenic, cadmium, mercury, nickel, benzo(a)pyrene and other polycyclic aromatic hydrocarbons in ambient air and deposition of those pollutants must be made in accordance with the reference methods set out in Annex V to Directive [2004/107/EC](#).

**Changes to legislation:**

There are currently no known outstanding effects for the The Air Quality Standards (Scotland) Regulations 2010, CHAPTER 3.