
STATUTORY INSTRUMENTS

2023 No. 96

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023

PART 4

Monitoring and assessment

Scope of this Part

11. This Part applies in relation to monitoring and assessment of PM_{2.5} levels carried out for the purposes of the annual mean concentration target and the population exposure reduction target.

Monitoring stations

12.—(1) The Secretary of State must ensure that the requirements in Schedule 2 (relating to the location and number of monitoring stations and position of monitoring equipment) are met.

(2) Subject to any determination under paragraph (3)(b), every AQSR monitoring station which was in operation immediately before the coming into force of this regulation is a monitoring station for the purposes of these Regulations.

(3) The Secretary of State may from time to time—

- (a) establish new monitoring stations to measure PM_{2.5} levels for the purposes of these Regulations; or
- (b) determine that a monitoring station is to cease to be used for the purposes of these Regulations, provided that the requirements in paragraph 3 of Schedule 2 (minimum number of monitoring stations) continue to be met.

(4) References to monitoring stations in these Regulations are to monitoring stations for the measurement of PM_{2.5} levels to which paragraph (2) applies or which are established by the Secretary of State under paragraph (3)(a) except—

- (a) in the expression “AQSR monitoring station” and its definition (see regulation 2(1)); and
- (b) where specific provision is made in relation to the meaning of “monitoring station” in relation to a time before these Regulations come into force (see regulation 14(5) and the definition of “background monitoring station” in paragraph 5 of Schedule 1).

Assessment

13.—(1) The Secretary of State must ensure that PM_{2.5} levels at each monitoring station are assessed as follows.

(2) Fixed measurements of PM_{2.5} must be taken either continuously or at hourly or other regular intervals which are not less frequent than once per day—

- (a) in accordance with the method described in BS EN 12341:2014 (“the reference method”); or

- (b) by another method which is equivalent to the reference method (“an equivalent method”).
- (3) For the purposes of paragraph (2)(b), a method of assessing PM_{2.5} levels is an equivalent method if it gives results which—
- (a) are equivalent to the results which would be given by the reference method; or
 - (b) otherwise bear a consistent relationship with the results which would be given by the reference method, disregarding any change to that relationship as a result of changes in the composition of PM_{2.5} in ambient air over time.
- (4) If PM_{2.5} levels are assessed by a method to which paragraph (3)(b) applies, the results must be adjusted to produce results equivalent to the results which would be given by the reference method.
- (5) If PM_{2.5} levels are assessed otherwise than in accordance with paragraph (2)(a), the Secretary of State must keep under review whether that method satisfies the requirements in paragraph (3).
- (6) In this regulation “BS EN 12341:2014” means the British Standard so numbered and titled ‘Ambient Air – standard gravimetric measurement method for the determination of the PM₁₀ or PM_{2.5} mass concentration of suspended particulate matter’⁽¹⁾.

Measurement, data ratification and minimum annual data capture requirement

- 14.—(1) For the purposes of these Regulations, PM_{2.5} levels are to be measured in µg/m³ to at least one decimal place.
- (2) The data obtained from fixed measurements of PM_{2.5} must be independently checked, and not used for the purposes of any calculations if it is determined that they are likely to be incorrect.
- (3) The data obtained from fixed measurements of PM_{2.5} at a monitoring station in a year are not to be used for the purposes of any calculations unless the minimum annual data capture requirement is met by the monitoring station in that year.
- (4) The minimum annual data capture requirement for a monitoring station is that fixed measurements of PM_{2.5} levels are taken, and the data from such measurements are ratified, for at least 85% of the hours in a year, or if measurements are taken at periodic intervals less frequent than hourly, for at least 85% of those periods in a year.
- (5) In this regulation—
- “monitoring station” in relation to any time before these Regulations came into force includes any AQSR monitoring station which was in operation at that time;
 - “ratified” means that data have been checked in accordance with paragraph (2) and not excluded from being used in calculations.

Calculation of annual mean PM_{2.5} level at monitoring stations

- 15.—(1) The Secretary of State must ensure that, as soon as reasonably practicable after the end of each year, the annual mean PM_{2.5} level is calculated for each monitoring station.
- (2) If PM_{2.5} levels are measured at periodic intervals, the annual mean PM_{2.5} level at a monitoring station is to be calculated as the mean of all the ratified periodic measurements taken in a year.

(1) Published by the British Standards Institution. Digital and hard copies can be purchased online from the BSI Group at <http://www.bsigroup.com>. Hard copies can also be purchased by post from the BSI Group Customer Services Department at 389 Chiswick High Road, London W4 4AL. A copy is available for inspection free of charge at the offices of the Department for Environment, Food and Rural Affairs, 2 Marsham Street, London SW1P 4DF.