

SCHEDULE 3

Regulation 7(3)

LOCATION OF SAMPLING POINTS FOR THE MEASUREMENT OF SULPHUR DIOXIDE, NITROGEN DIOXIDE AND OXIDES OF NITROGEN, PARTICULATE MATTER AND LEAD IN AMBIENT AIR.

The following considerations will apply to fixed measurement.

PART I

Macroscale siting

Protection of human health

- (a) Sampling points directed at the protection of human health should be sited:
- (i) to provide data on the areas within zones and agglomerations where the highest concentrations occur to which the population is likely to be directly or indirectly exposed for a period which is significant in relation to the averaging period of the limit value(s);
 - (ii) to provide data on levels in other areas within the zones and agglomerations which are representative of the exposure of the general population.

Sampling points should in general be sited to avoid measuring very small micro-environments in their immediate vicinity. As a guideline, a sampling point should be sited to be representative of air quality in a surrounding area of no less than 200 m² at traffic-orientated sites and of several square kilometres at urban-background sites.

Sampling points should also, where possible, be representative of similar locations not in their immediate vicinity.

Account should be taken of the need to locate sampling points on islands, where that is necessary for the protection of human health.

Protection of ecosystems and vegetation.

- (b) Sampling points targeted at the protection of ecosystems or vegetation should be sited more than 20 km from agglomerations or more than 5 km from other built-up areas, industrial installations or motorways. As a guideline, a sampling point should be sited to be representative of air quality in a surrounding area of at least 1000 km². A sampling point may be sited at a lesser distance or to be representative of air quality in a less extended area, taking account of geographical conditions.

Account should be taken of the need to assess air quality on islands.

PART II

Microscale siting

The following guidelines should be met as far as practicable:

- the flow around the inlet sampling probe should be unrestricted without any obstructions affecting the airflow in the vicinity of the sampler (normally some metres away from buildings, balconies, trees, and other obstacles and at least 0.5 m from the nearest building in the case of sampling points representing air quality at the building line);

Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.

- in general, the inlet sampling point should be between 1.5 m (the breathing zone) and 4 m above the ground. Higher positions (up to 8 m) may be necessary in some circumstances. Higher siting may also be appropriate if the station is representative of a large area;
- the inlet probe should not be positioned in the immediate vicinity of sources in order to avoid the direct intake of emissions unmixed with ambient air;
- the sampler's exhaust outlet should be positioned so that recirculation of exhaust air to the sampler inlet is avoided;
- location of traffic-oriented samplers:
 - for all pollutants, such sampling points should be at least 25 m from the edge of major junctions and at least 4 m from the centre of the nearest traffic lane,
 - for nitrogen dioxide, inlets should be no more than 5 m from the kerbside,
 - for particulate matter and lead, inlets should be sited so as to be representative of air quality near to the building line.

The following factors may also be taken into account:

- interfering sources;
- security;
- access;
- availability of electrical power and telephone communications;
- visibility of the site in relation to its surroundings;
- safety of public and operators;
- the desirability of co-locating sampling points for different pollutants;
- planning requirements.

PART III

Documentation and review of site selection

The site-selection procedures should be fully documented at the classification stage by such means as compass-point photographs of the surrounding area and a detailed map. Sites should be reviewed at regular intervals with repeated documentation to ensure that selection criteria remain valid over time.