SCHEDULE 2

CLASSIFICATION AND LOCATION OF SAMPLING POINTS

The following considerations will apply to fixed measurements:

PART I

MACROSCALE SITING

Type of station	Objective of measurement	Representativeness (a)	Macroscale siting criteria
Urban	Protection of human health: to assess the exposure of the urban population to ozone, i.e. where the population density and ozone concentration are relatively high and representative of the exposure of the general population.	A few km ²	Away from the influence of local emissions such as traffic, petrol stations etc.; vented locations where well- mixed levels can be measured; locations such as residential and commercial areas of cities, parks (away from the trees), big streets or squares with very little or no traffic, open areas characteristic of education, sports or recreation facilities.
Suburban	Protection of human health and vegetation: to assess the exposure of the population and vegetation located in the outskirts of the agglomeration, where the highest ozone levels, to which the population and vegetation is likely to be directly or indirectly exposed, occur.	Some tens of km ²	At a certain distance from the area of maximum emissions downwind following the main wind directions during conditions favourable to ozone formation; where population, sensitive crops or natural ecosystems located in the outer fringe of an agglomeration are exposed to high ozone levels;

⁽a) sampling points should also, where possible, be representative of similar locations not in their immediate vicinity.

Type of station	Objective of measurement	Representativeness (a)	Macroscale siting criteria
			where appropriate, some suburban stations also upwind of the area of maximum emissions, in order to determine the regional background levels of ozone.
Rural	Protection of human health and vegetation: to assess the exposure of population, crops and natural ecosystems to sub-regional scale ozone concentrations.	Sub-regional levels (a few km²)	Stations can be located in small settlements and/or areas with natural ecosystems, forests or crops; representative for ozone away from the influence of immediate local emissions such as industrial installations and roads;
			at open area sites, but not on higher mountain-tops.
Rural background	Protection of vegetation and human health: to assess the exposure of crops and natural ecosystems to regional-scale ozone concentrations as well as exposure of the populations.	Regional/national/continental levels (1,000 to 10,000km²)	Station located in areas with lower population density, e.g. with natural ecosystems, forests, far removed from urban and industrial areas and away from local emissions; avoid locations which are subject to locally enhanced formation of
			near-ground inversion conditions, also summits of higher mountains;
			coastal sites with pronounced diurnal wind cycles of local character are not recommended.

⁽a) sampling points should also, where possible, be representative of similar locations not in their immediate vicinity.

For rural and rural background stations, consideration should be given, where appropriate, to coordination with the monitoring requirements of Commission Regulations (EC) No. 1091/94(1) concerning protection of the Community's forests against atmospheric pollution.

PART II

MICROSCALE SITING

The following guidelines should be followed, as far as practicable:

- 1. the flow around the inlet sampling probe should be unrestricted (free in an arc of at least 2700) without any obstructions affecting the air flow in the vicinity of the sampler, i.e. away from buildings, balconies, trees and other obstacles by more than twice the height the obstacle protrudes above the sampler.
- 2. in general, the inlet sampling point should be between 1.5m (the breathing zone) and 4m above the ground. Higher positions are possible for urban stations in some circumstances and in wooded areas.
- 3. the inlet probe should be positioned well away from such sources as furnaces and incineration flues and more than 10m from the nearest road, with distance increasing as a function of traffic intensity.
- 4. the sampler's exhaust outlet should be positioned so as to avoid recirculation of exhaust to the sampler inlet.

The following factors may also be taken into account:

- (a) interfering sources;
- (b) security;
- (c) access;
- (d) availability of electrical power and telephone communications;
- (e) visibility of the site in relation to its surroundings
- (f) safety of public and operators;
- (g) the desirability of co-locating sampling points for different pollutants; and
- (h) planning requirements.

PART III

DOCUMENTATION AND REVIEW OF SITE SELECTION

Site selection procedures should be fully documented at the classification stage by such means as compass point photographs of the surroundings and a detailed map. Sites should be reviewed at regular intervals with repeated documentation to ensure that selection criteria are still being met.

This requires proper screening and interpretation of the monitoring data in the context of the meteorological and photochemical processes affecting the ozone concentrations measured at the respective site.

3

⁽¹⁾ O.J.No. L125, 18.5.1994, p. 1