CNR - INSTITUTE OF ATMOSPHERIC POLLUTION RESEARCH

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UNEP/GEF Project
"Development of a Plan for Global
Monitoring of Human Exposure to and Environmental Concentrations of Mercury"

ANNEX 1
Siting criteria for locating Sampling Sites

Sampling sites should be located in areas where:

- levels of mercury are representative of the exposure of the general population
- the population is likely to be directly or indirectly exposed to very high concentrations averaged over *a day/month/or calendar year*
- the density of the living population is at the highest level (or almost at a very high level)
- well mixed levels can be measured (in vented locations)

Sampling points should in general be sited so as *to avoid measuring very small micro-environments* in their immediate vicinity.

Where *contributions from industrial sources* are to be assessed, at least one sampling point shall be installed downwind of the source in the nearest residential area.

Private Locations in residential and commercial areas of cities, parks (away from a forest), big streets or squares, open areas characteristic of educational, sports or recreation facilities could be chosen in such a way to prevent stealing or vandalism on exposed passive samplers.

The following criteria should be met as far as practicable:

- the flow around the passive sampler should be unrestricted, without any obstructions affecting the airflow in the vicinity (normally some metres away from buildings,

balconies, trees and other obstacles and at least 0,5 m from the nearest building or wall, in the case of sampling points representing air quality at the building line);

- in general, the inlet sampling point should be around 2,0/3,0 m (the breathing zone) above the ground. Higher positions (up to 8 m) may be necessary in some circumstances, in particular to avoid that the samplers are accidentally removed by unknown. Higher siting may also be appropriate if the station is representative of a large area;

- the inlet sampling point should not be positioned in the immediate vicinity of sources in order to avoid direct intake of emissions unmixed with ambient air;