METHOD STATEMENT

Determinand:
Suspended Dust

Matrix:
Suspended dust on membrane filters

Principle of Method:
A filter medium is weighed and sent in an appropriate container to be connected to a sampling device. A known volume of air is drawn through the filter, which collects any particles. The filter is then returned and re-weighed, and the weight of particles collected is recorded. This figure along with the sampling time and the volume of air sampled is then used to calculate the amount of dust in that volume of air.

Sampling and Sample Preparation:
The appropriate filter medium is selected, weighed on a balance and the weight is recorded. The filter medium is set up with sampling apparatus on site and dust is collected over a set time period. Once the time is completed, the filter is removed from the sampling apparatus, stored in a transport cassette, and returned to the laboratory for re-weighing. The weight of the filter is noted again, and the results are calculated and reported as mg/m3.

Interferences:
There are no interferences recognised for this method.

Performance of Method:
Performance characteristics have not been determined for this method. The limit of detection (LOD) is determined from three times the standard deviation of the weight changes of all the field blanks.

The Uncertainty of Measurement has been calculated using a bottom up approach following the procedure given in GOP 7.6A.

The reported uncertainty is an expanded uncertainty calculated using a coverage factor of 2, which gives a level of confidence of approximately 95%.

Determinand	UoM (%)
Inhalable Dust Weight	1.16
Respirable Dust Weight	2.90

References:
MDHS 14/4 General methods for sampling and gravimetric analysis of respirable, thoracic, and inhalable aerosols.