

Air Quality



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## Atmospheric Dispersion Modelling

Environmental Compliance's modelling specialists have a wealth of experience in undertaking atmospheric dispersion modelling studies. Computer modelling packages, such as ADMS and AERMOD, are used to predict the impact of existing installations and/or proposed developments on both human health and the environment. Studies take into account the effects of topography, meteorological conditions, building downwash and local air quality.

The results of a modelling study are usually expressed in terms of maximum impact and the impacts at certain specified sensitive receptors, which can be human or environmental in nature.

Modelling study predictions are compared with the relevant air quality standards to ascertain whether the contribution from the process(es) being modelled is likely to cause a breach of a standard.

### Dispersion modelling studies are used:

- to determine discharge stack heights
- to assess environmental impact in support of planning or Environmental Permit applications
- to assess visual impact of a plume
- in safety and emergency planning assessments
- for odour assessments.



## Ambient Air Quality Monitoring

Environmental Compliance can supply, install, and commission continuous ambient air quality sampling systems for the monitoring of airborne particulates (PM<sub>10</sub> and/or PM<sub>2.5</sub>) and trace heavy metals, whether it be for a fixed-term study or a permanent installation. These can be supplied complete with meteorological data stations to monitor the prevailing weather conditions. Environmental Compliance can also manage the operation of the samplers, arranging for calibration, maintenance, the collection of samples and data, sample analysis, data interpretation and reporting.

Where it is necessary to monitor for other pollutants (e.g. nitrogen dioxide and sulphur dioxide), diffusion tubes or passive samplers can be used as a low cost alternative. These have the advantage of being small and inconspicuous. Using this approach, large areas can be surveyed simultaneously to provide the maximum coverage at the minimum cost, whilst still producing robust, good quality data.

### Ambient air quality monitoring studies are used:

- to assess point and area source impacts
- to assess impact on human health and the environment
- to assess compliance with UK National Air Quality Strategy
- to assist developers with planning applications and Environmental Impact Assessments (EIA)
- to determine compliance with Environmental Permit conditions or as a requirement of an ISO 14001 Environmental Management System (EMS)
- to confirm predictions from atmospheric dispersion modelling studies.

Training

Consultancy

Environmental Noise

Occupational Hygiene

Air Quality

For further information telephone **01443 841760**

or email our team on **info@envirocompli.com**

We also provide a full range of environmental services

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