

Poster presentation
Quantification of emissions

QUANTIFICATION OF THE IMPACT OF PM₁₀ EMISSIONS ON AMBIENT CONCENTRATIONS

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In the poster 3 different ways for obtaining the impact of an industrial pm₁₀ emission site on ambient concentrations are presented.

The first method concerns a combination of source emission measurements with model calculations. Emissions measurement concern stack emissions, emissions of diffusive sources and determination of pm₁₀-emission potentials. With model calculations, using the New Dutch National Model total pm₁₀ concentrations and the source contributions are calculated. Results are presented as plots of iso concentration lines.

The second method concerns a combination of source emission estimates with model calculations. The source emission estimates are obtained by identifying pm₁₀ sources at the industrial site and calculate the pm₁₀ emissions with pm₁₀-emission potentials, obtained from literature or previous measurements of Buro Blauw. On the poster a study of pm₁₀ emissions of a landfill is presented.

In the third approach the ambient pm₁₀ concentrations are measured during a representative period. The duration of the monitoring program depends on expected fluctuations in pm₁₀ emissions and fluctuations in relevant weather parameters, such as wind direction, wind speed and precipitation. Measurement results can be extrapolated to yearly averaged values, using data of measurements of pm₁₀ obtained from representative stations of the Dutch National Air Quality Monitoring Network. The results are presented in compass roses of pm₁₀ concentrations. From these diagrams, dominant local sources for pm₁₀ emissions can be derived.