

Air Dispersion Model for Prediction Fugitive Landfill Gaseous Emission Impact in Ambient Atmosphere

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Abstract : This paper will explore formation of HCl aerosol at atmospheric boundary layers and encourages the uptake of environmental modeling systems (EMSs) as a practice evaluation of gaseous emissions (“framework measures”) from small and medium-sized enterprises (SMEs). The conceptual model predicts greenhouse gas emissions to ecological points beyond landfill site operations. It focuses on incorporation traditional knowledge into baseline information for both measurement data and the mathematical results, regarding parameters influence model variable inputs. The paper has simplified parameters of aerosol processes based on the more complex aerosol process computations. The simple model can be implemented to both Gaussian and Eulerian rural dispersion models. Aerosol processes considered in this study were (i) the coagulation of particles, (ii) the condensation and evaporation of organic vapors, and (iii) dry deposition. The chemical transformation of gas-phase compounds is taken into account photochemical formulation with exposure effects according to HCl concentrations as starting point of risk assessment. The discussion set out distinctly aspect of sustainability in reflection inputs, outputs, and modes of impact on the environment. Thereby, models incorporate abiotic and biotic species to broaden the scope of integration for both quantification impact and assessment risks. The later environmental obligations suggest either a recommendation or a decision of what is a legislative should be achieved for mitigation measures of landfill gas (LFG) ultimately.

Keywords : air pollution, landfill emission, environmental management, monitoring/methods and impact assessment

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