PARTICULATE AEROSOL PROFILE AT AGRA, INDIA

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Abstract

The Central Pollution Control Board has taken the responsibility to monitor Ambient Air Quality at 4 identified locations at Agra, India. Under this special monitoring program of CPCB, the Respirable Particulate Matter (RSPM) is being monitored from the very beginning using indigenous Respirable Dust Sampler (RDS). In this present investigation, an attempt has been made to demonstrate 'percentage particulate matter size distribution profile' of RSPM towards partial fulfillment of source apportionment of RSPM with reference to particulate aerosol classifications, viz. primary aerosol, secondary aerosol, local particles and transported particles. In this investigation, it was observed that the distribution of Ultra-fine particulate or primary aerosols was highest at all locations, followed by Fine particulate or secondary aerosol and Respirable transported particulates. The coarse particulate or crust particulates were noted to be least in winter months. The study concludes with some short term and long term recommendations.

Key Words

Primary Aerosol and Ultra-fine Particulate Matter (UPM~PM_{0.1-1.0}), Secondary or Fine Particulate Matter (FPM~PM_{1.0-2.5}), Respirable Particulate Matter (RSPM ~PM_{2.5-10}), Suspended Particulate Matter (SPM ~PM₁₀₋₁₀₀),