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A Comparative Study of Dust-Fall at Silent Zone and Public Transport Station (Central Bus Stand), Aurangabad

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ABSTRACT: Dust is one of the important air pollutants in ambient air. Dust contains Respirable Particulate Matter (PM10 & PM2.5) which are critical air pollutants which may cause health problems and damage property. The Study of Dust fall is thus crucial to community health, hygiene and framing government policies. The study was conducted to determine the dust fall rate in two different sampling locations in the city of Aurangabad in Maharashtra state, India. One site is a notified 'Silent Zone' and second is a 'Public Transport Station' (central Bus stand). In each site, five sampling stations were selected for the study. The sampling was carried out by gravimetric method. The average dust fall in the silent zone was 0.188 g cm²⁻¹ h⁻¹ while that found at the Public Transport Station (central bus stand) was 0.408 g cm²⁻¹ h⁻¹. From the statistical analysis it was inferred that the p value 0.05 was significant hence, it was proved that there was a significant difference in dust fall at silent zone and public transportation (central bus stand) and also it is prove that the p value of the one tailed & two tailed test is high.

Keywords: Dust fall rate; Silent zone; RSPM; Pollutants; Maharashtra.