

CARBON MONOXIDE AND HYDROCARBON CONTAINS OF MOTORCYCLES: DUMAGUETE CITY, PHILIPPINES

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ABSTRACT

Clean air is essential for being healthy. Data from the Department of Environment and Natural Resources' Environmental Management Bureau (DENR-EMB) revealed the Total Suspended Particles (TSP) in Metro Manila during the first quarter of 2015 reached 130 micrograms per normal cubic meter (ug/Ncm). The maximum safe level is 90 ug/Ncm. Since 80% of pollution load is contributed by vehicles, the study determined the amount of carbon monoxide (CO) and hydrocarbons (HC) during the smoke emission testing of motorcycles in Dumaguete City, Philippines. Random sampling and simple average formula were utilized in the study. Using the smoke test results from January to February 2015, it was found out that the average amount of CO is 1.45 ug/cm which is very low compared to DENR standard exposure value of 35 ug/cm for one hour and 10 ug/cm for 8-hour exposure. Also, the average amount of HC is 600.26 ppm as hexane which is low compared to DENR's maximum set value of 4500 ppm to 6500 ppm as hexane. Current findings indicate that the amount of CO of motorcycle emissions are insignificant while HC are low as compared to the standard value.

KEYWORDS: Environment, Smoke Emission, Descriptive Design, Philippines

INTRODUCTION