

## ABSTRACT

ALINA MILADINA. *Comparison The Level of Carbon Monoxide (CO) Pollution on Solo-Yogyakarta Road Using Gaussian Dispersion Model and Direct Measurement.*

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*Transportation is one of the biggest source of air pollution in cities, including in Sleman Regency which experiences population growth every year. This has the potential to increase air pollution in Sleman Regency, one of them is carbon monoxide (CO) that comes from motor vehicle emissions. The purpose of this study was to determine the level of carbon monoxide's (CO) concentration released by motorized vehicles, especially on Solo-Yogyakarta Road (North-Ringroad Junction) Sleman Regency using direct measurements and gaussian line source modeling on weekday and weekends. The method used in this research are through surveys and field observations on Saturday, Sunday, and Monday during rush hour. The results of observations and calculations show that the concentration of carbon monoxide (CO) on weekend is 14904,76  $\mu\text{g} / \text{m}^3$  and on weekday is 18666,67  $\mu\text{g} / \text{m}^3$ . After being compared with the Gaussian line source disperse modeling, the Gaussian line source disperse modeling can be applied on Solo-Yogyakarta Road (North-Ringroad Junction) Sleman Regency.*

*Keywords: Carbon monoxide (CO), Gaussian line source, motorized vehicle*



*“Halaman ini sengaja dikosongkan.”*

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