ANALYSIS OF CO CONCENTRATION INSIDE AND OUTSIDE MINIBUS AT MANGKANG BUS STATION SEMARANG

A Thesis Submitted in Partial Fulfillment for The Requirements of Master Degree in Environmental Sciences

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ANALYSIS OF CO CONCENTRATION INSIDE AND OUTSIDE MINIBUS AT MANGKANG BUS STATION SEMARANG

ABSTARCT

This research uses Mangkang Bus Station as the object of examination. The station is closely related to people-related activities. The CO contents found at the location, based on sampling result from minibus, shows threatening impact due to pollution. The impact does not only apply to the commuters, but also to the passengers as well as the people living nearby the researched location. Object to be used for this research is CO concentration. Sample collection is performed outside and inside the minibus at the parking lot of Mangkang Bus Station to get data on CO concentration. Sample collection stage will be performed seven days in three times, morning, afternoon, and noon. The data used for the analysis are obtained by primary data collection. The research uses a statistically quantitative analysis. Result showed that the content of the concentration on the bus that observed during the study period was 13.086 mg/m^3 in the morning, 13.518 mg/m^3 during daytime and night time concentrations of CO reached 14.213 mg/m^3, so concentration of CO is below than standard. Content of concentration outside the monitored bus during the study period was 17.606 mg/m^3 in the morning, 117.202 mg/m^3 during daytime and night time concentrations of CO reached 17.488 mg/m^3. Such conditions can affect the health of humans in the vicinity and also interfere with breathing. The number of vehicles affects the content of CO produced both inside and outside the bus. The more number of buses around the site, the higher the CO content is in that location, Mangkang Bus Station.

Keyword : CO Concentration, Inside, Outside, Minibus, Mangkang Bus Station

ANALISIS KONSENTRASI CO DI DALAM DAN DI LUAR MINIBUS DI TERMINAL MANGKANG SEMARANG

ABSTRAK

Penelitian ini berlokasi di Terminal Mangkang. Berbagai aktivitas manusia juga dilakukan di terminal ini. Hasil penelitian terhadap minibus, menunjukan bahwa ditemukannya hasil buangan CO pada lokasi ini dan dapat berakibat timbulnya polusi udara. Dampaknya tidak hanya terhadap masyarakat di sekitar terminal tetapi juga berdampak pada penumpang minibus tersebut. Objek penelitian kali adalah gas CO. Pengumpulan data konsentrasi CO dilakukan di dalam minibus dan di luar pada Terminal Mangkang. Pengumpulan data akan dilakukan selama tujuh hari dalam tiga kali pengambilan, yaitu pagi, siang dan sore hari. Data yang diperoleh akan dianalisis dan digunakan sebagai data primer. Penelitian ini menggunakan analisis statistik secara kuantitatif. Diman, hasil penelitian menunjukan bahwa konsenterasi CO di dalam minibus adalah 13.086 mg/m^3 pada pagi hari, 13.518 mg/m^3 pada siang hari dan pada sore hari konsentrasi CO mencapai 14.213 mg/m^3, jadi konsentrasi CO di dalam minibus masih di bawah standar baku mutu CO. Sedangkan, konsentrasi CO di luar minibus selama pengamatan, menunjukan 17.606 mg/m^3 pada pagi hari, 117.202 mg/m^3 pada siang hari dan pada malam hari mencapai 17.488 mg/m^3. Kondisi seperti ini akan mempengaruhi kesehatan manusia dan mengganggu pernafasan. Jumlah kendaraan memberikan pengaruh terhadap kadar CO yang dihasilkan baik di dalam minibus maupun di luar minibus. Semakin banyak jumlah minibus, maka semakin tinggi kadar CO di sekitar lokasi penelitian, Terminal Mangkang.

Kata kunci : Konsentrasi CO, Di dalam, Di luar, Minibus, Terminal Mangkang