

INTISARI

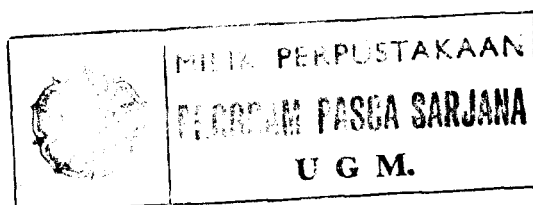
Penelitian ini bertujuan mengetahui hubungan korelasi antara kadar karbon monoksida (CO) dengan kepadatan arus kendaraan, kadar CO dengan suhu dan kelembaban udara, perbedaan kadar CO antara ruang parkir Basemen 1(B1) dan Basemen 2(B2), pola distribusi kadar CO ruang parkir B1 dan B2.

Pengamatan terhadap kadar CO pada ruang parkir bawah tanah B 1 dan B 2 Pusat Belanja Galeria Yogyakarta telah dilakukan selama 13 jam mulai pukul 07.00 sampai pukul 20.00. Kadar CO diukur dengan alat *Monoxor II Carbo-monoxide Analyzer*. Cara analisis data dengan uji korelasi, analisis varian satu arah dan analisis grafik.

Hasil penelitian menunjukkan bahwa rerata kadar CO di ruang parkir B1 adalah 17,83 ppm dan di B2 tercatat 22,04 ppm, kadar tertinggi 25,13 ppm dan kadar terendah 12,03 ppm, kadar CO berkorelasi secara positif dengan kepadatan arus kendaraan bermotor di ruang parkir bawah tanah, berkorelasi positif dengan suhu udara dan berkorelasi negatif dengan kelembaban udara. Rerata kadar CO di ruang parkir B1 B2 berbeda secara bermakna dengan $\alpha 0,05$. Rerata kadar CO di ruang parkir bawah tanah sudah melampaui baku mutu udara ambien yang berlaku di Daerah Istimewa Yogyakarta. Kadar CO berfluktuasi setiap waktu dan cenderung mengikuti fluktuasi arus kendaraan bermotor pada ruang parkir. Distribusi CO pada ruang parkir B1 mempunyai bentuk dan pola yang berbeda dengan distribusi kadar CO pada ruang parkir B2.

Oleh karena itu perlu upaya-upaya mewaspadaai efek buruk kadar CO di ruang parkir bawah tanah dan mengurangi waktu pemaparan pada karyawan yang bekerja di ruang parkir bawah tanah.

Kata kunci: kadar CO, temperatur, kelembaban udara, indeks ketidaknyamanan, ruang parkir bawah tanah.



ABSTRACT

The research entitled “The Level of Carbon Monoxide in the Underground Parks in Yogyakarta”, aimed to find out the correlation between the level of CO and the density of the traffic flow, the correlation between the level of CO and the air temperature and humidity, the difference of the CO level between the underground park Basement 1 (B1) and Basement 2 (B2), and the pattern and type of the CO distribution in the underground park B1 and B2.

The observation on the level of CO in the underground park B1 and B2 at Galeria Mall, Yogyakarta had been conducted for thirteen hours started from seven o'clock a.m. to eight o'clock p.m. The level of Carbon Monoxide was tested by using Monoxor II Carbon Monoxide Analyzer. The methods of analyzing the data were correlation analysis, one-way Analysis of Variance (1-way Anova), and graphic analysis.

The results of the research showed that the means of the CO level in the underground park B1 was 17,83 ppm and B2 was 22,04 ppm. The highest level was 25,13 ppm and the lowest one was 12,03 ppm. The level of the CO correlated positively with the density of the traffic flow in the underground parks, correlated positively with the air temperature, and correlated negatively with the air humidity. The means of the CO level in the underground park B1 and B2 was different significantly with the degree of 0,05. The means of the CO level in the underground parks had exceeded the quality of the ambient air temperature that had been applied in Yogyakarta. The level of CO fluctuated all the time and tended to follow the fluctuation of the traffic flow in the underground parks. The distribution of CO in the underground park B1 had a different pattern and type from that in the underground park B2.

Therefore, it is important to be wary of the bad effects of the CO level in the underground parks and try to reduce the time exposure for the employees who worked in the underground parks.

Key Words : CO Level, Temperature, Humidity, Comfortability Index, Underground Parks

