

ABSTRAK

Timbal adalah suatu logam berat dimana saat bensin dibuat, maka timbal akan ditambahkan. Timbal merupakan salah satu penyumbang tercemarnya udara, dimana pencemaran tersebut bersumber dari asap kendaraan, serta uap bensin. Dalam kelompok masyarakat Operator SPBU adalah kelompok yang memiliki resiko tinggi untuk terkena efek buruk dari timbal. Saat terkena paparan timbal yang terjadi secara berkelanjutan akan mengakibatkan suatu efek buruk yaitu pembentukan hemoglobin. Maka dari, dilakukannya penelitian ini yang guna untuk mencari tahu korelasi kadar hemoglobin dalam darah terhadap kadar timbal pada operator SPBU Pertamina 54.613.31 Pelabuhan, SPBU Pertamina 54.613.23 Kenongo, dan SPBU Pertamina 54.613.18 Pening di Kecamatan Jetis Kabupaten Mojokerto. Penelitian dilakukan dengan memakai jenis analitik observasional melalui pendekatan analisa kuantitatif. Penelitian akan dilaksanakan di Fakultas Kesehatan Masyarakat UNAIR Surabaya pada bulan Januari-April 2023. Sedangkan saat proses mengambil sampel untuk penelitian akan menggunakan teknik *Purposive Sampling* dengan 30 responden petugas SPBU. Petugas SPBU merupakan variabel terikat, sedangkan kadar hemoglobin dan kadar timbal merupakan variabel bebas. Pengukuran kadar timbal memanfaatkan AAS (*Atomic Absorption Spectrophotometer*) sedangkan kadar hemoglobin menggunakan *hematologic analyzer*. Setelah melakukan penelitian pada operator SPBU didapati dalam darahnya kadar timbal yaitu dengan rata-rata 0,016022mg/L, nilai paling tinggi 0,03104 mg/L serta nilai paling rendah 0,00478 mg/L, sedangkan kadar hemoglobin yang terkandung yaitu dengan rata-rata 12,95 g/Dl, nilai paling tinggi 17,1 g/dL, serta nilai paling rendah 8,9 g/dL. Pada hasil uji korelasi Spearman menghasilkan nilai signifikansi $p = 0,982$ serta nilai koefisien korelasi $r = 0,004$. Maka dapat diambil kesimpulan yaitu tidak adanya kaitan yang bermakna diantara kadar timbal terhadap kadar hemoglobin pada operator SPBU.

Kata Kunci : Kadar Hemoglobin, Kadar Timbal, Petugas SPBU

ABSTRACT

Lead is a weighty metal where when gasoline is made, lead is added. Lead is one of the contributors to air pollution, where the pollution comes from vehicle fumes and gasoline vapors. Within the community, gas station operators are a group that has a high risk of being adversely affected by lead. When exposed to lead exposure that occurs continuously will result in an adverse effect, namely the formation of hemoglobin. Hence, this research was directed to figure out the correlation between's hemoglobin levels in the blood and lead levels at Pertamina gas station operators 54.613.31 Pelabuhan, Pertamina gas station Kenongo 54.613.23, and Pertamina gas station Perring 54.613.18 in Jetis District, Mojokerto Regency. This research will use observational analytic type with a quantitative analysis approach. The research will be done at the Faculty of Public Health UNAIR Surabaya in January-April 2023. While the process of taking samples for research will use a purposive sampling technique with 30 respondents from gas stations. Gas station attendants are the dependent variable, while hemoglobin levels and lead levels are the independent variables. Estimation of lead levels utilizing Atomic Absorption Spectrophotometer (AAS) while hemoglobin levels using a hematologic analyzer. After conducting research on gas station operators, it has been found that the level of lead in their blood were an average of 0.016022 mg/L, the most noteworthy worth was 0.03104 mg/L and the least worth was 0.00478 mg/L, while the hemoglobin level contained was with an average - average 12.95 g/dL, the highest value is 17.1 g/dL, and the lowest value is 8.9 g/dL. The Spearman correlation test results yielded a significance worth of $p = 0.982$ and a correlation coefficient of $r = 0.004$. Along these lines, it tends to be presumed that there is no significant relationship between lead levels and hemoglobin levels at gas station operators.

Keywords: Hemoglobin Levels, Lead Levels, Gas Station Officers