

ABSTRAK

KUALITAS UDARA AMBIEN DI AREA RING 1 PABRIK SEMEN BATURAJA

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Industri semen merupakan penyumbang terbesar dari total emisi partikulat di dunia. Penelitian ini bertujuan untuk mendeskripsikan kualitas udara ambien di sekitar industri PT. Semen Baturaja. Penelitian ini menggunakan metode bersifat deskriptif dan jumlah sampel 6 titik udara ambien yaitu Perumahan Karyawan Komplek Perumahan Tiga Gajah Indah, Sekolah Dasar MIN 2, Pemukiman Desa Puser, Kantor Camat Baturaja Barat, Rumah Sakit Antonio (Lama), Taman Kota Baturaja. Variabel pengamatan meliputi karbon monoksida, sulfur dioksida, nitrogen dioksida, dan TSP. Metode pengambilan sampel yang dilakukan yaitu secara grab sampling. Pengukuran dilakukan selama 24 jam pada tiap – tiap titik sampel. Hasil penelitian menunjukkan bahwa konsentrasi CO di udara ambien dengan nilai rata – rata yaitu 1.145 - 2.290 $\mu\text{g}/\text{m}^3$. SO₂ di udara ambien dengan nilai rata – rata yaitu 36,3 - 41,4 $\mu\text{g}/\text{m}^3$. No₂ di udara ambien dengan nilai rata – rata yaitu 35,6 – 42,3 $\mu\text{g}/\text{m}^3$. TSP di udara ambien dengan nilai rata – rata yaitu 113 – 133 $\mu\text{g}/\text{m}^3$. Berdasarkan hasil pengukuran yang dilakukan maka dapat disimpulkan bahwa konsentrasi CO, SO₂, No₂, dan TSP di udara ambien di ring1 Industri PT. Semen Baturaja Kabupaten Ogan Komering Ulu masih di bawah standar baku mutu PP RI No.22 tahun 2021.

Kata Kunci : Industri Semen, Emisi, Udara Ambien

ABSTRACT

AMBIENT AIR QUALITY IN RING 1 AREA OF BATURAJA CEMENT FACTORY

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The cement industry is the largest contributor to total particulate emissions in the world. This study aims to describe the ambient air quality around the PT. Baturaja Cement. This study used a descriptive method and the sample size was 6 ambient airpoints, namely Employee Housing Complex, Tiga Gajah Indah Housing Complex, MIN 2 Elementary School, Puser Village Settlement, West Baturaja Sub-District Office, Antonio (Old) Hospital, Baturaja City Park. Observational variables include carbon monoxide, sulfur dioxide, nitrogen dioxide, and TSP. The sampling method used is grab sampling. Measurements were carried out for 24 hours at each sample point. The results showed that the CO concentration in ambient air had an average value of 1.145 - 2.290 $\mu\text{g}/\text{m}^3$. SO₂ in ambient air with an average value of 36.3 - 41.4 $\mu\text{g}/\text{m}^3$. NO₂ in ambient air with an average value of 35.6 – 42.3 $\mu\text{g}/\text{m}^3$. TSP in ambient air with an average value of 113 – 133 $\mu\text{g}/\text{m}^3$. Based on the results of the measurements carried out, it can be concluded that the concentrations of CO, SO₂, No₂, and TSP in the ambient air in the PT. Semen Baturaja, Ogan Komering Ulu Regency, is still below the PP RI quality standards No. 22 of 2021.

Keywords: *Cement Industry, Emissions, Ambient Air*