

ABSTRAK

Imilda Lidiawati

PENGARUH JARAK TEMPAT PEMBUANGAN AKHIR (TPA) SAMPAH BENOWO KOTA SURABAYA TERHADAP KADAR H_2S DAN NH_3 DI LINGKUNGAN PEMUKIMAN

xvi + 48 Halaman + 7 Tabel + 2 Gambar + 5 Lampiran

Gas Hidrogen Sulfida dan Amonia merupakan salah satu gas yang dapat menyebabkan sumber pencemaran udara sehingga dapat menimbulkan gangguan kesehatan saluran pernapasan. Penelitian ini bertujuan menentukan hubungan antara jarak dengan kadar hidrogen sulfida dan amonia di sekitar lingkungan pemukiman.

Penelitian ini termasuk dalam penelitian analitik dengan pendekatan *cross sectional*. Penelitian ini menggunakan pengumpulan data primer meliputi pengukuran kadar H_2S , NH_3 , dan faktor meteorologi. Pengambilan sampel H_2S dan NH_3 dilakukan pada 3 titik, pada titik 1: radius 100 meter, titik 2: radius 500 meter dan titik 2: radius 1000 meter. Data di analisis menggunakan Uji Korelasi *Spearman*.

Hasil penelitian menunjukkan bahwa rata-rata suhu titik I $31,1^{\circ}C$, titik II $32^{\circ}C$, dan titik III $32,1^{\circ}C$. Kelembaban titik I 69,3%, titik II 68,3%, dan titik III 69%. Kecepatan angin berkisar 0,7 m/s. Kadar H_2S titik I 0,041 ppm, titik II 0,04 ppm dan titik III 0,04 ppm. Dan kadar NH_3 titik I 1,813 ppm, titik II 1,776 ppm dan titik III 1,882 ppm.

Kesimpulan penelitian ini adalah ada pengaruh antara jarak dengan kadar H_2S di lingkungan pemukiman dan tidak ada pengaruh antara jarak dengan kadar NH_3 di lingkungan pemukiman. Sehingga disarankan untuk melakukan pemantauan kualitas udara secara rutin dan banyak menanam tanaman yang bisa menyerap gas polutan di sekitar TPA sampah Benowo.

Kata Kunci : Hidrogen Sulfida, Amonia, Jarak, Tempat Pembuangan Akhir Sampah

Daftar Bacaan : 28 buku (1996 – 2020)

ABSTRACT

Imilda Lidiawati

THE EFFECT OF DISTANCE OF BENOWO WASTE FINAL DISPOSAL (TPA) SURABAYA CITY ON H₂S AND NH₃ LEVELS IN THE SETTLEMENT ENVIRONMENT

xvi + 48 Pages + 7 Tables + 2 Image + 5 Attachments

Hydrogen Sulfide and Ammonia gas is one of the gases that can cause a source of air pollution that can cause respiratory tract health problems. This study aims to determine the relationship between distance and levels of hydrogen sulphide and ammonia in the residential environment.

This research is included in analytical research with approach *cross sectional*. This study used primary data collection including measurements of levels of H₂S, NH₃, and meteorological factors. Sampling of H₂S and NH₃ was carried out at 3 points, at point 1: a radius of 100 meters, point 2: a radius of 500 meters and point 2: a radius of 1000 meters. The data were analyzed using the Correlation Test *Spearman*.

The results showed that the average temperature of point I was 31.1°C, point II was 32°C, and point III was 32.1°C. Humidity at point I was 69.3%, point II was 68.3%, and point III was 69%. The wind speed is around 0.7 m/s. Levels of H₂S point I 0,041 ppm, point II 0.04 ppm and point III 0.04 ppm. And the levels of NH₃ point I 1,813 ppm, point II 1,776 ppm and point III 1,882 ppm.

The conclusion of this study is that there is an effect between distance and levels of H₂S in residential areas and there is no effect between distance and levels of NH₃ in residential areas. So it is advisable to monitor air quality regularly and plant lots of plants that can absorb pollutant gases around the Benowo waste landfill.

Keywords : Hydrogen Sulfide, Ammonia, Distance, Final Disposal of Waste
Reading List : 28 books (1996 – 2020)