

THE EFFECT OF H₂S, NH₃ AND INDIVIDUAL CHARACTERISTICS OF RESPIRATORY DISORDERS ON EXPOSED COMMUNITIES

(Case Study at TPA Griyo Mulyo, Jabon District, Sidoarjo Regency on 2022)

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ABSTRACT

H₂S and NH₃ from the waste decomposition process at the Griyo Mulyo landfill, Sidoarjo which can cause respiratory problems. The purpose of this study was to analyze the effect of H₂S, NH₃, and respondent characteristics (age, gender, years of service, smoking habits, and history of respiratory disease) on complaints of respiratory disorders in workers.

This research is analytic observational with cross sectional approach and purposive sampling method. The population in this study was the community exposed around the Griyo Mulyo landfill, totaling 56 people with a total sample of 50 people and air samples consisting of H₂S and NH₃. The analytical method used is binary logistic regression analysis.

The results showed that the concentration of H₂S and NH₃ did not exceed the Regulation of the Governor of East Java No.10 of 2009. Based on binary logistic regression analysis it shows that the independent variable that has a significant effect on complaints of respiratory disorders is the period of service with a regression coefficient of 26.7% Meanwhile, other independent variables such as H₂S, NH₃, age, gender, smoking habit, and history of disease have no effect on respiratory disorders.

It is hoped that the Health Office of Sidoarjo Regency regarding the local Health Office will conduct counseling on the dangers of exposure to gases inhaled by workers. In addition, although in this study H₂S and NH₃ had no effect on respiratory complaints, it is recommended to complete workers while working to reduce the risk of exposure to H₂S and NH₃.

Keywords : Ammonia, Hydrogen Sulfide, individual characteristics, Respiratory Disorders.

Reading list : Journal (35), Thesis (6), Book (21).