

## ABSTRAK

*Heat stress* adalah beban panas yang diterima pekerja yang terpapar tekanan panas dari beberapa faktor usia menghasilkan peningkatan penyimpanan panas dalam tubuh. Terdapat di beberapa area di PT. X yang memiliki suhu di atas Nilai Ambang Batas yaitu pada area *Tripper* dan *Compressor Room Ash Handling* dengan hasil studi pendahuluan terdapat 60% responden mengalami *heat stress* sedang. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang berhubungan dengan *heat stress* pada pekerja di PT. X Kota Cilegon tahun 2023 seperti usia, konsumsi air minum, lama paparan, beban kerja, dan tekanan panas. Penelitian ini merupakan jenis penelitian kuantitatif dengan desain penelitian *cross sectional*. Populasi pada penelitian ini seluruh pekerja di area *tripper*, *scrapper*, dan *compressor room ash handling* sebanyak 97, sampel sebanyak 87, dengan teknik sampling yang digunakan yaitu total sampling. Metode pengumpulan data menggunakan data primer dengan menggunakan alat ukur berupa kuesioner baku *Environmental Symptoms Questionnaire*. Data dianalisis menggunakan *chi-square* dengan hasil bivariat menunjukkan bahwa adanya hubungan usia dengan *heat stress* ( $p$ -value 0,004), beban kerja dengan *heat stress* ( $p$ -value 0,002), tekanan panas dengan *heat stress* ( $p$ -value 0,018), dan tidak ada hubungan konsumsi air minum dengan *heat stress* ( $p$ -value 1,000), lama paparan dengan *heat stress* ( $p$ -value 0,256). Ventilasi di area *tripper* dan *compressor room ash handling* untuk dibuka lebar dan *exhaust* di jalankan, dan penambahan blower dan perlu melakukan pengaturan jadwal, bagian kerja, dan waktu istirahat pekerja dalam sehari dengan memperhatikan nilai ambang batas paparan panas yang diterima oleh pekerja.

**Kata kunci:** *Heat stress*, usia, konsumsi air minum, lama paparan, beban kerja, tekanan panas

## ABSTRACT

*Heat stress is the heat load received by workers who are exposed to heat stress from several factors that result in increased heat storage in the body. Available in several areas at PT. X which has a temperature above the Threshold Value is in the Tripper and Compressor Room Ash Handling areas. Based on the results of the preliminary study, 60% of respondents experienced moderate heat stress. This research aims to determine the factors related to heat stress in workers at PT. X Cilegon City in 2023 such as age, drinking water consumption, exposure time, workload and heat stress. This research is a type of quantitative research with a cross sectional research design. The population in this study included 97 workers in the tripper, scrapper and compressor room ash handling areas, the sample was 87, with the sampling technique used, namely total sampling. The data collection method uses primary data using a measuring instrument in the form of a standard Environmental Symptoms Questionnaire. Data were analyzed using chi-square with bivariate results showing that there was a relationship between age and heat stress (p-value 0.004), workload and heat stress (p-value 0.002), heat stress and heat stress (p-value 0.018), and no there is a relationship between drinking water consumption and heat stress (p-value 1.000), exposure time to heat stress (p-value 0.256). Ventilation in the tripper area and compressor room ash handling must be opened wide and the exhaust run, and the addition of a blower and it is necessary to arrange schedules, work sections and workers' rest times in a day by paying attention to the threshold value of heat exposure received by workers.*

**Keywords:** *Heat stress, age, drinking water consumption, exposure time, workload, heat stress*