

# Analisis hubungan tekanan panas (heat stress) terhadap gangguan kesehatan pekerja konstruksi di proyek pembangunan depo Light Rail Transit (LRT), Jatimulya, Bekasi Timur tahun 2021 = Analysis of the relationship of heat stress to health problems for construction workers at the Light Rail Transit (LRT) depo development project, Jatimulya, East Bekasi in 2021

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## Abstrak

Pembangunan Depo Light Rail Transit (LRT) Jabodebek memiliki luas sekitar 12 ha yang mana 80% areanya merupakan area terbuka (terpapar panas). Mekanisme terjadinya heat stress terjadi karena kombinasi dari faktor lingkungan, faktor pekerjaan, dan karakteristik pekerjaan. Penelitian ini merupakan penelitian kuantitatif dengan desain studi cross-sectional yang telah dilakukan pada bulan Agustus 2021 dengan 185 responden (126 pekerja outdoor dan 59 pekerja indoor). Hasil penelitian menunjukkan indeks WBGT outdoor berada pada kisaran 25,9° C - 33,1° C dengan rata-rata 29,4° C dan WBGT indoor yaitu berada diantara 25,9° C - 35,3° C dengan rata-rata 30,4° C. Setelah dilakukan observasi dan perhitungan antara beban kerja, pola kerja dan faktor koreksi pakaian yang merujuk dari Peraturan Menteri Kesehatan nomor 70 Tahun 2016, diketahui bahwasannya 100% responden penelitian mengalami kejadian tekanan panas. Pada pekerja outdoor terdapat 56,35% merasakan keluhan ringan dan 43,65% merasakan keluhan berat. Persentase keluhan/gangguan kesehatan tertinggi yang dirasakan yaitu jarang buang air kecil (98,41%), lemas (88,89%), dan banyak keringat (85,71%). Sedangkan untuk pekerja indoor terdapat 67,80% merasakan keluhan ringan dan 32,20% merasakan keluhan berat. Persentase keluhan/gangguan kesehatan tertinggi yang dirasakan yaitu kurang konsentrasi (62,71%), kram otot tungkai bawah (57,63%) dan kram otot lengan (55,93%). Berdasarkan hal tersebut, perlu dilakukan berbagai upaya pengendalian terhadap pajanan panas yang terdapat di proyek pembangunan depo LRT Jabodebek agar dapat meminimalisir dampak keluhan/gangguan kesehatan pada pekerja sehingga pekerja tidak menderita Heat Related Symptoms.

.....The construction of the Jabodebek Light Rail Transit (LRT) Depo has an area of about 12 ha of which 80% of the area is an open area (exposed to heat). The mechanism of heat stress occurs due to a combination of environmental factors, job factors, and job characteristics. This research is a quantitative study with a cross-sectional study design that was conducted in August 2021 with 185 respondents (126 outdoor workers and 59 indoor workers). The results showed that the outdoor WBGT index was in the range of 25.9° C - 33.1° C with an average of 29.4° C and indoor WBGT was between 25.9° C - 35.3° C with an average of 30.4° C. After observing and calculating the workload, work patterns and clothing correction factors referring to the Regulation of the Minister of Health number 70 of 2016, it is known that 100% of research respondents experienced heat stress events. In outdoor workers, 56.35% felt mild complaints and 43.65% felt severe complaints. The highest percentage of perceived health complaints/disorders were infrequent urination (98.41%), weakness (88.89%), and a lot of sweating (85.71%). Meanwhile, for indoor workers, 67.80% felt mild complaints and 32.20% felt severe complaints. The highest percentage of perceived health complaints/disorders were lack of concentration (62.71%), lower leg muscle cramps (57.63%) and arm muscle cramps (55.93%). Based on this, it is necessary to carry out various efforts to control heat exposure

in the Jabodebek LRT depot development project in order to minimize the impact of complaints/health problems on workers so that workers do not suffer from Heat Related Symptoms.