Perancangan Kondisi Kerja dengan menggunakan Desain Faktorial 3k dalam rangka mengantisipasi Peningkatan Aktivitas Bongkar Muat di Pelabuhan Tanjung Mas Semarang

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Abstrak

Physical work environment is one of factor that influence performance worker, but this is rarely main attention industry, especially for worker as operator when he done. This happened in PT (Persero) Pelabuhan Indonesia III that manage container transportation with Gantry Crane, from shipping in Tanjung Mas Semarang. The problem in this case was operator time work not maximal, so target didn't reach. It was happen because physical work environment not ergonomic, such high temperature in room, level sound from machine very high, brightness is very high.

Based on condition above, this research has goal to design physical work environment in operator room Gantry Crane. The design concern several aspects, such level sound from machine, temperature, and brightness in operator room. Method of this research is factorial experiment design with 3 factors (axbxc), use I 0 times replications. Data analysis used analysis variance (ANAVA) with F statistical at level I % and 5%.

From the result analysis, it can be conclusions that improve level sound from machine, temperature, and brightness in operator room give influence to average operator time work in Gantry Crane. Operator works with optimal time work in temperature 24 - 26 UC, intensity fighting I 300-I 500liumen, use ear plug, and improve facility air conditioner (AC).