

## **Analisis Faktor-Faktor yang Mempengaruhi Terjadinya Keluhan Gangguan Non Auditory yang di Rasakan oleh Teknisi Perawatan Lokomotif di Dipo Lokomotif Jatinegara Tahun 2017**

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### **Abstrak**

Di tempat kerja, bising menjadi masalah yang dapat mengakibatkan dampak kesehatan terhadap sistem auditory maupun sistem non-auditory. Dipo Lokomotif Jatinegara merupakan perusahaan yang mempunyai proses perawatan lokomotif yang menghasilkan bising. Penelitian ini bertujuan untuk mengetahui tingkat kebisingan di Dipo Lokomotif Jatinegara dan mencari faktor-faktor seperti dosis pajanan bising harian, usia, masa kerja, hobi terkait bising, tempat tinggal bising dan perilaku merokok serta pemakaian alat pelindung telinga (APT) dengan terjadinya gangguan non-auditory. Pengumpulan data dilakukan dengan pengukuran tingkat kebisingan pada sumber bising dan area dipo lokomotif serta dosis pajanan bising harian secara langsung di lapangan. Selain itu, gangguan non-auditory juga diukur melalui kuesioner. Hasil pengukuran tingkat kebisingan di area dipo lokomotif dan dosis pajanan bising harian diketahui pada seluruh unit kerja yang diukur berada diatas NAB (nilai ambang batas). Hasil pengukuran gangguan non-auditory dari 63 responden diperoleh tingkat gangguan non-auditory berat sebanyak 26 orang (41.3%) dan gangguan non-auditory ringan sebanyak 37 orang (58.7%). Analisis rata-rata dosis pajanan bising harian dengan gangguan non-auditory menggunakan uji T-Test diketahui bahwa tidak terdapat perbedaan yang signifikan antara pekerja yang mengalami tingkat gangguan non-auditory. Disamping itu, analisis antara variabel pemakaian alat pelindung telinga (APT) dengan gangguan non-auditory mendapatkan hasil hubungan yang signifikan. Sedangkan analisis antara variabel usia, masa kerja, hobi terkait bising, tempat tinggal bising dan perilaku merokok dengan gangguan non-auditory diperoleh hubungan yang tidak signifikan. Berdasarkan hasil penelitian dapat disimpulkan gangguan non-auditory yang dialami pekerja lebih disebabkan oleh pemakaian alat pelindung telinga (APT). Rekomendasi yang diberikan yaitu mengendalikan gangguan non-auditory dengan menurunkan dosis pajanan bising harian yang ada hingga dibawah NAB dan penggunaan alat pelindung telinga yang sesuai dan konsisten. Kata Kunci: Dosis pajanan bising, Gangguan non-auditory, perawatan lokomotif

In the workplace, noise might become a problem affecting both auditory and as well as non-auditory system. Dipo Locomotive Jatinegara is a company that has a locomotive maintenance process generating noise. This research aims to know the level of noise in the Dipo Locomotive Jatinegara and to find certain factors such as exposure to noise daily dose, age, period of employment, hobby related to noise, noisy residence, and smoking behavior, as well as usage of ear protectors tools (in Indonesian known as Alat Pelindung Telinga/APT) factors and the occurrence of non-auditory disorders. Data collection was done by measuring the noise level at the noise source and the area of the locomotive as well as the daily noise exposure dose directly in the field. In addition, the non-auditory disorders also were measured through a questionnaire. The results of the measurements of noise levels in the area of exposure and daily noise exposure dose of the locomotive on the whole work unit which were finally known that the measurement was above NAB (threshold value). The results of the measurement of the non-auditory disorders consisted of 63 respondents: obtaining a non-auditory disorders weight level as much as 26 people (41.3%) and other non-auditory disorders as many as 37 people (58.7%). Analysis of the average of the daily noise exposure

dose with the non-auditory disorders used the T-Test showed there was no significant difference between workers who experience non-auditory disorders level. In addition, the analysis between variable usage of tools ear protectors (APT) and the non-auditory disorders resulted on significant relationships. While the analysis between the variables age, period of employment, hobby related to the noise, noisy living place and the smoking behavior of non-auditory disorders with the obtained relationship were not significant. Based on the results of the research, it could be concluded that a non-auditory disorders experienced by workers are caused by the usage of ear protectors tools (APT). The given recommendations is that namely the non-auditory disorders control by lowering the dose of the daily noise exposure exists under the NAB and the use of ear protectors that are appropriate and consistent. Keywords: Daily exposure dose, non-auditory, treatment of the locomotive