ABSTRACT

The use of machines in the process of industry is likely to cause noise that could have an impact on the health and one of them is the impact on health of hearing. This study was conducted to find out the relationship in the intensity of noise with hearing threshold value of labor exposed to noisy on the 3rd floor of PT. X. The research was conducted with cross sectional design. The study population was a labor of production area on the 3rd floor in total of 40 people. Samples of 36 people and retrieved using the formula by Notoadmodjo, 2002. The sampling technique was using simple random sampling. Independent variable of the study was the intensity of the noise, confounding variables are age, length of work, length of exposure, and the use of APT. And the dependent variable was the Threshold Value of Hearing.

Noise measurement was done on the 3rd floor by measuring 14 points. Results of measurements of the average intensity of the noise obtained at 104.8 dB, which means that the noise intensity on the 3rd floor exceeds the Threshold Limit Value (NAB). Audiometric examination performed showed that 24 people had abnormal hearing threshold or exceeds the NAB (>25 dB) and 12 people had normal hearing threshold (≤25 dB). Using correlation test of Pearson and Spearman correlation (p < 0.05) showed that there is a relationship between the noise and the individual characteristics of the hearing threshold value of workers on the 3rd floor.

Conclusions that can be drawn are the result of the average measurement of noise on the 3rd floor exceeds NAB and the measurement result of audiometric is that many workers have no normal hearing threshold. There is a relationship between the intensity of noise and characteristic of the individual against hearing threshold value of labor. Noise control already undertaken but the efforts was not effective.

Key words: noise intensity, Threshold Value of Hearing, Labor.