

## ABSTRACT

*PT.X Jawa Timur is a Steam Power Plant company. The production process in PT.X Jawa Timur has the potential to affect the safety and health of workers, such as noise hazard by turbine sound and other operational activities. This study aims to find out the risk of noise in PT X. Jawa Timur through noise mapping, to know the characteristics of workers and their relation to the impact of noise perceived by workers. Research with cross sectional design has been done in PT. X Jawa Timur. The samples are from 30 workers who worked at operation section with total population sampling technique. Measurement of noise is done in main plant area by using Sound Level Meter. Research data mapped with mapping application and analyzed using chi-square test and logistic regression at 5% significance level. About 8 of 15 from the noise measurement points was exceeded the Threshold Limit Value (TLV). There are 60% workers age over 41 years old with 53.3% working period over 5 years. There are 53.3% of workers are good knowledge and 60% of workers are compliance to the use of Ear Protective Equipment (EPT). The great impact of noise was felt by 43.3%. The relationship between knowledge and obedient of the use of Ear Protective Equipment (EPT) with p-value of 0.001. Relation intensity of noise, the obedient of the use of Ear Protective Equipment (APT), age and working period with the impact of noise with P-value are 0,016; 0.004; 0.002 and 0.000 in a row. Tenure and knowledge of workers were the most influential factor with P-value 0,000 and 0.002 based on logistic regression test.*

*Keywords: Mapping, Noise, Occupational Health and Safety*