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Noise Measurement and Awareness at Construction Site: A Case Study

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Abstract : The construction industry is one of the major sectors in Malaysia. Apart from providing facilities, services, and goods it also offers employment opportunities to local and foreign workers. In fact, the construction workers are exposed to a hazardous level of noises that generated from various sources including excavators, bulldozers, concrete mixer, and piling machines. Previous studies indicated that the piling and concrete work was recorded as the main source that contributed to the highest level of noise among the others. Therefore, the aim of this study is to obtain the noise exposure during piling process and to determine the awareness of workers against noise pollution at the construction site. Initially, the reading of noise was obtained at construction site by using a digital sound level meter (SLM), and noise exposure to the workers was mapped. Readings were taken from four different distances; 5, 10, 15 and 20 meters from the piling machine. Furthermore, a set of questionnaire was also distributed to assess the knowledge regarding noise pollution at the construction site. The result showed that the mean noise level at 5m distance was more than 90 dB which exceeded the recommended level. Although the level of awareness regarding the effect of noise pollution is satisfactory, majority of workers (90%) still did not wear ear protecting device during work period. Therefore, the safety module guidelines related to noise pollution controls should be implemented to provide a safe working environment and prevent initial occupational hearing loss.

Keywords : construction, noise awareness, noise pollution, piling machine
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