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Assessing Noise Exposure at Construction Industry in Selangor

Megat Irman Ariff Megat Zahiran

Structured Abstract

Background: In the construction sector, occupational noise exposure poses a serious risk to health since it can result in noise-induced hearing loss (NIHL) and other conditions. The study is to map out the noise levels at a construction site in Bukit Jelutong, Selangor, analyse worker personal noise exposure, and measure the noise levels linked with construction operations and machines. High noise levels in the construction business are well-known, and they endanger the hearing and general health of workers. The application of noise management techniques is frequently insufficient, even in the face of rules and laws. It cites research showing how common NIHL is among construction workers and how better noise control is required.

Methods: A thorough research design, methods for gathering data, and ethical concerns are all part of the approach. To gather information on noise levels and individual exposure, the study will make use of noise dosimeters and sound level metres (SLM). To see how noise is distributed around the building site, noise mapping will be done.

Results: Due to the very high noise levels produced by heavy machinery, data gathered at these spots showed that at least three of the five locations chosen exceeded the Noise Exposure Limits (NEL). At Point 1 (P1), the maximum noise level ever recorded was a startling 98.3 dB(A). All employees were exposed to noise levels higher than the NEL, according to the data study. The main cause of this is the loud machinery and building operations, which create dangerously high noise levels and endanger workers' hearing. Worker 3 (W3) had the highest recorded personal noise exposure, measuring in at a startling 103.3 dB(A). After the phases of data collection and analysis, the study went on to make noise maps for every machine that was evaluated during area monitoring.

Conclusion: To sum up, this study proposal offers a methodical strategy for assessing and controlling noise exposure during work in the construction sector. It is in a position to significantly improve worker health and safety by tackling the pressing problem of workplace noise.

Keywords: Area monitoring, personal monitoring, noise mapping

*Correspondence: zitty@uitm.edu.my

ᵃ School of Chemistry & Environment, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Malaysia