

UNIVERSITI TEKNOLOGI MARA

**OCCUPATIONAL NOISE EXPOSURE
AND HEARING LOSS SYMPTOMS
AMONG CONSTRUCTION
WORKERS**

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Project submitted in fulfillment of the requirements for
the degree of
**Bachelor in Environmental Health and Safety
(Hons.)**

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DECLARATION BY STUDENT

Project entitled “Carbon Dioxide Emission and Climate Change Impact in Kuala Lumpur” is a presentation of my original research work. Whenever contributions of others are involved, every effort is made to indicate this clearly, with due reference to literature, and acknowledgement of collaborative research and discussions. The project was done under the guidance of Project Supervisor, Razi Ikhwan Bin Md Rashid. It has been submitted to the Faculty of Health Sciences in partial fulfilment of the requirement for the Degree of Bachelor in Environmental Health and Safety (Hons).

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In the name of Allah, The Most Gracious, The Most Merciful.

Assalamualaikum and Alhamdulillah, all praise to Allah S.W.T The Supreme Lord of the Universe. Peace and blessing to Nabi Muhammad S.A.W., all prophets and their families. I praise Allah S.W.T. for the strength and His blessings in completing my study.

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ABSTRACT

Forty four noise exposure samples were collected at low-cost apartment building construction from two different construction trades: ironworkers and bricklayers. The noise exposure level was measured using personal noise dosimeter, whereas hearing loss with other health effect was measured via questionnaire completed by workers. T-test conducted for to compare noise exposure level between two different trades. The mean average noise exposure (L_{Aeq}) of ironworker was 104.73 ± 2.96 dBA and bricklayer was 90.83 ± 4.22 dBA respectively, and the different of noise exposure between trades is statistically significant. The relationship of working period and annoyance from noise evaluated where range from 16 to 20 of working years; the longest period of working group was 85.7%, which was the highest among range of working period. The hearing complaints shows that highest hearing problem come from bricklayer trade (75.0%). The noise exposure was being compared to the Permissible Exposure Limit (PEL) as stated in First Schedule of Factory and Machinery (Noise Exposure) Regulations 1989. The exposure of noise supersede the PEL as 68.2% of the workers suffering from hearing adverse effect and complaints about their hearing loss symptoms, although they had not had any periodical hearing test and they are not using ear protection equipment.

Keywords: *Noise, construction trades, dosimeter, noise exposure level*