NOISE AND VIBRATION RISKS IN SOME MALAYSIAN INDUSTRIES

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ABSTRACT

It is generally known that noise and vibration pose a latent and potentially serious occupational health risk to workers. Excessive noise and vibration potentially result in hearing loss and white fingers syndrome respectively. While there are current Malaysian legislation for control of industrial noise exposure, there are no such control for vibration exposure. A brief discussion on current Malaysian legislation, and internationally recommended limits are presented. Statistics from the Factories and Machinery Department showed definite hearing impairment risk in Malaysian industries. A more detail examination of noise levels, noise dosage for several selected industry types are presented. The examples illustrated the need for greater awareness, and urgency for engineering noise control.

Vibration is an even more latent risk. Users of power tools, and heavy machinery had tended to be unaware of such occupational health risk. The paper present typical vibration measurements of some power tools, and assessed against recommended safe limits. Current research at UTM confirmed hand arm vibration reduction with the use of gloves and anti-vibration lining. Some typical results are presented.

OCCUPATIONAL RADIATION EXPOSURE IN MALAYSIA

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ABSTRACT

Radiation techniques have certain advantages over conventional techniques which make it a popular choice in various applications in industry, medicine and research. Its uses in Malaysia increases by about 13% per year in the industrial sector and 20% per year in the medical sector. Since radiation can also cause side effects to exposed persons the safety of workers, thus, becomes very important and needs to be given proper attention.
Persons working in radiation-controlled areas are required by law to be monitored individually. They are monitored by film dosimeter and TLD provided by UTN for whole body and hand exposures. Based on monitoring results over the last 5 years, it was found that the average annual individual whole body dose and the average annual collective (accumulated) dose received by the workers are between 0.53 - 1.6 mSv and 1.37 - 3.42 mSv respectively. These figures are comparable to those experienced by radiation workers in other developed and developing countries. For hand exposure, however, the dose received is generally higher than the whole body dose but overall it shows a significant improvement in terms of safety as indicated by a reduction in the amount of dose received from 10.28 mSv in 1987 to 2.16 mSv in 1991. The overall trend of declining occupational dose received by the workers for both whole body and hand exposures indicates a favourable working condition provided for workers in radiation related activities.

Fatal cancer risk associated with occupational exposure is small compared with the existing mortality rate. There is, however, a considerable spread of doses received by workers within occupational groups and there could, therefore, be room for further reduction of radiation exposure in a number of instances.

OCCUPATIONAL HEALTH SERVICES IN MALAYSIA: THE WAY AHEAD

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ABSTRACT

As Malaysia stands on the threshold of joining the industrialized nations, the country has to face the challenge of controlling the concomitant problems of environmental pollution, industrial accident and diseases. National socio-economic development also brings in its wake a higher expectation among the population on their quality of life. There is also growing concern about the increasing number of industrial accidents, disasters and diseases which result in loss of lives and disabilities among affected workers. While this has caused great economic loss to the nation, the human suffering and anguish of those affected and their families can never be quantified. Consequently, there is now an urgent need to gear up our occupational health services to prepare...