

## Ergonomics at the Workplace

**THE** adoption of ergonomic practices at the workplace can contribute to a higher level of performance in manufacturing and production. Abdul Azim Abdul Rahman, a product engineer with Steelcase Global Shared Services, explained that such practices emphasise on the safety and health of workers so that they avoid or minimise injury caused by overstretching, lifting heavy objects, bending excessively, and etc.

He said, "The increase in productivity can be proven by the numbers of hours people perform at their job. According to a year-long international study of over 200 participants, those who used a particular model of a chair and received office ergonomics training achieved a 17.8% increase in productivity. The study also found a reduction in 'musculoskeletal symptoms'.<sup>1</sup>

How can the adoption of ergonomics translate into cost savings for the employer? Abdul Azim responded, "When workers are in good health, naturally there will be less medical expenditure by the latter. In the manufacturing industry, if several workers are on emergency leave on a particular day, there will be a shortage of workers which, in turn, affects productivity."

He went on to explain that workers who are trained in ergonomic practices or use ergonomic equipment are more likely to be happy with their work and to remain with the company. This also translates into cost savings for the latter as it eliminates the need to retrain new workers.

Fortunately, investing in good equipment with ergonomics consideration need not be costly for employers. Take, for example, a production line. Abdul Azim said, "An assembly line that is designed according to the ergonomics concept will allow all the components that need to be assembled at a particular station be easily reachable by hand. This means that workers will not risk injury by overstretching."



Abdul Azim

He observed that although the benefits of ergonomic practices in the workplace are numerous, the adoption rate in Malaysia remains low compared to other countries. He also believes that such practices are more commonly adopted by multinational companies with a big workforce. As such, businesses can help increase the adoption rate by taking into account ergonomic consideration whenever a new production line is set up. ■

<sup>1</sup>Bulletin Editor's note: Based on references furnished by the interviewee, the findings were published in a peer-reviewed article Amick, B. et al., *Spine*. 28(24):2706-2711, 15 Dec 2003, and in DeRango et al., *Upjohn Institute Staff Working Paper No. WP03-95*, May 2003, [www.upjohninst.org](http://www.upjohninst.org).

## Is There Adequate Protection for Workers?

Some quarters have questioned if the current occupational safety and health regulations in the country are adequate to protect the safety of its workers. This issue has become a serious concern in light of the collapse of the old Jaya Supermarket building in Section 14, Petaling Jaya on 28 May 2009.

According to Ir. Noor Hisham bin Yahaya, Managing Director of Total Maintenance Resources Sdn Bhd, there are sufficient regulations to safeguard the workers in this country. In fact, he believes most of these regulations are comparable with those in other

developed countries in Europe, and even the United States and Australia.

However, the main issue in Malaysia is the lack of enforcement of such regulations which needs to be given priority. He said, "One example of this is the Asbestos Regulation in the United Kingdom which was established in 1969. A similar regulation was implemented in the United States and Malaysia in 1977 and 1986 respectively. Although more than 40 countries worldwide have banned the use of asbestos since then, Malaysia has yet to ban this substance<sup>2</sup>."

(To be continued on page 12)

Not surprisingly, the enforcement of occupational safety and health regulations is closely related to the productivity of the workforce. Non-compliance of the former can often lead to the latter being affected. This generally applies to any industry including manufacturing.



*Ir. Noor Hisham*

He added, "It is critical for workers that no accidents occur when they are carrying out their work. Otherwise, even minor accidents can cause an extensive loss of time which will result in the overall reduction in the productivity of the workforce." He added that in the local oil and gas industry, since most of the players consist of multinational companies, having standardised safety implementations is a requirement.

When it comes to carrying out demolition activities, Ir. Noor Hisham pointed out that many advanced countries have controlled and competent demolition contractors to undertake the job. He said, "Where the construction of buildings and plants is critical in managing safety at the worksite, the demolition of 'old and ageing' facilities is even more critical as such structures may no longer be able to take the designed load."

This naturally leads to the question of whether the current occupational safety and health regulations in Malaysia provide adequate protection to its workers. Ir. Noor Hisham responded that the country has put in place many such regulations. In fact, he noted that some of the regulations which are comparable with developed countries included:

- a) Factories and Machinery Act 1967 – to manage safety and health concerns associated to manufacturing industries
- b) Factories and Machinery (Asbestos Process) Regulations 1986
- c) Factories and Machinery (Noise Exposure) Regulations 1989
- d) Occupational Safety and Health Act (OSHA) 1994 – a comprehensive regulation to safeguard the employees and the public at large

Ir. Noor Hisham explained that while the Occupational Safety and Health Act (OSHA) 1994 is a comprehensive regulation to safeguard employees and the public at large, the Factories and Machinery Act 1967 was enacted to manage the safety and health concerns of workers associated with the manufacturing industry.



*Asbestos removal personnel removing asbestos roof sheet from one of the multi-national company in an oil terminal. [Courtesy of TMR-DDM Demontage Sdn Bhd]*



Controlled demolition of LPG Spherical Tank in one of the multinational company in an oil terminal. [Courtesy of TMR-DDM Demontage Sdn Bhd]

Despite the existence of these regulations, there are some who feel that the industry as a whole should work towards improving the current situation. Ir. Noor Hisham said, "The relevant authorities can

further enhance safety at the workplace by analysing some of the most recent accidents, namely, demolition activities at the old Jaya Supermarket building."

He pointed out that, very often, less attention is given to buildings that are 'old' and are about to be demolished compared to 'new' building construction activities. When less attention is given to these demolition activities, accidents are bound to happen and these often result in fatalities. As such, demolition activities should be given, at the very least, an equal amount of attention.

In summary, Ir. Noor Hisham emphasised that the planning of any development should reflect on the phrase 'from cradle to grave' by encompassing design, procurement, construction, operation, retirement and demolition. ■

<sup>2</sup>Bulletin Editor's note: There is no contradiction with the prior sentence. Based on the article 'Asian Asbestos Initiatives' by Laurie Kazan-Allen, International Ban Asbestos Secretariat: '... crocidolite was banned in Malaysia in 1986, the use of other types of asbestos, including chrysotile, amosite, tremolite, anthophyllite and actinolite, remains legal.'



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