

Rapid Upper Limb Assessment on GP Plywood Sdn Bhd Staff

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Structured Abstract

Background: The manufacturing industry is the sector that focuses on the production of new products from raw materials that go through multiple processes for consumers or businesses. The forestry sector plays a crucial role influencing the development of Malaysia socio-economic. To produce wood-based product such as plywood, it required human workforce that can develop the risk of MSDs due to ergonomic hazards such as awkward posture. This study aims to identify the production process at plywood manufacturer at GP Plywood Sdn Bhd in Terengganu that contributes to most of the ergonomic problems. It also focuses on using RULA to evaluate risk related to ergonomic hazards. The control measures will be proposed to mitigate the ergonomic risks.

Methods: This study used qualitative and quantitative method to collect the data. The Cornell Questionnaires, interviews, survey and observation were used to assess the workers and task from work unit of Lathe, RAC, Roller Dryer, Composer and Repair. All the collected data were tabulated in bar chart, pie chart and graph to be analyze. The recommendations were formed based on the obtained data to minimize the ergonomic hazards.

Results: This study shows that workers from work unit of repair was the most affected to the risk of MSDs. Three out of three female workers were reported experiencing discomfort and pain almost entire of the body part except neck, elbow, upper back, and ankle due to awkward posture, repetitive movement, and sustained posture. The work unit of repair also obtained score 7 in RULA, indicating very high risk on MSDs and required to investigate and implement change soon.

Conclusion: In conclusion, all the objectives were achieved. The repair work unit was identified as the process that contributed to most of the ergonomic problem in GP Plywood Sdn Bhd. The work unit of repair, composer, and RAC obtained score 7 in RULA. Workstation redesign, ergonomic training, and improving the surface of work area were proposed as control measures in order to ensure the safety and health of the workers

Keywords: Manufacturing Industry, Plywood Manufacturer, Ergonomic, Muskuloskeletal Disorders, Rapid Upper Limb Disorders.

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