

Effect on Occupational Health Safety and Environment at Work from Metal Handicraft Using Rattanakosin Local Wisdom

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Abstract : This research investigated the effect on occupational health safety and environment at work from metal handicraft using Rattanakosin local wisdom focusing on pollution, accidents, and injuries from work. The sample group in this study included 48 metal handicraft workers in 5 communities by using questionnaires and interview to collect data. The evaluation form TISI 18001 was used to analyze job safety analysis (JSA). The results showed that risk at work reduced after applying the developed model. Banbu Community produces alloy bowl rubbed with stone. The high risk process is melting and hitting process. Before the application, the work risk was 82.71%. After the application of the developed model, the work risk was reduced to 50.61%. Banbart Community produces monk's food bowl. The high risk process is blow pipe welding. Before the application, the work risk was 93.59%. After the application of the developed model, the work risk was reduced to 48.14%. Bannoen Community produces circle gong. The high risk process is milling process. Before the application, the work risk was 85.18%. After the application of the developed model, the work risk was reduced to 46.91%. Teethong Community produces gold leaf. The high risk process is hitting and spreading process. Before the application, the work risk was 86.42%. After the application of the developed model, the work risk was reduced to 64.19%. Ban Changthong Community produces gold ornament. The high risk process is gold melting process. Before the application, the work risk was 67.90%. After the application of the developed model, the work risk was reduced to 37.03%. It can be concluded that with the application of the developed model, the work risk of 5 communities was reduced in the 3 main groups: (1) Work illness reduced by 16.77%; (2) Pollution from work reduced by 10.31%; (3) Accidents and injuries from work reduced by 15.62%.

Keywords : occupational health, safety, local wisdom, Rattanakosin

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