

PENGENDALIAN RISIKO BAHAYA KECELAKAAN DENGAN METODE FAILURE MODE AND EFFECT ANALYSIS (FMEA) DAN HAZARD IDENTIFICATION RISK ASSESSMENT (HIRA)

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Abstrak

Pada kegiatan kerja UKM Mebel seperti pemotonga kayu, pembentukan kayu menjadi balok, dsb. Masih banyak ditemukan risiko dan bahaya kerja yang sewaktu – waktu bisa menimpa para pekerja. Sehingga dapat menimbulkan kerugian material, fisik, finansial, serta produksi. Untuk mengurangi dan mencegah terjadinya kecelakaan kerja yang dapat menimbulkan cedera atau kerugian material, dsb. Berdasarkan hasil identifikasi serta penilaian risiko menggunakan metode FMEA (Failure Mode and Effect Analysis) dengan pengolahan kuisioner terhadap 5 orang pekerja, didapatkan nilai Risk Priority Number (RPN) pada jenis risiko terjepit kayu sebesar 103.2, tertusuk serpihan kayu 91.728, gangguan atau iritasi pada mata 82.992, gangguan pernafasan sebesar 76.608, kejatuhan alat 71.672, terkena mata gergaji mesin. Hasil identifikasi risiko dan bahaya menggunakan metode HIRA (Hazard Identification Risk Assessment) ditemukan 23 potensi bahaya yang terdapat paa 4 aspek kerja yang dapat merugikan karyawan serta pemilik. Dan dari keempat aspek kerja dengan 23 potensi bahaya kerja masih terdapat hasil risk rating kategori parah dan sangat parah dengan rentang nilai risk rating sebesar 15-25, serta masih banyak terdapat potensi bahaya dengan skala kategori sedang dengan rentang nilai 6-12. Usulan perbaikan kedepan untuk lebih meningkatkan faktor keselamatan dan kesehatan kerja pada lingkungan kerja dengan melakukan kontrol dan pengawasan secara rutin, serta penggunaan APD sesuai standar yang telah ditentukan serta melakukan pelatihan, inspeksi peralatan dan lingkungan kerja dan pemasangan rambu keselamatan.

Kata Kunci : *FMEA,HIRA, Pengendalian, Risiko, Bahaya*

RISK CONTROL OF ACCIDENT HAZARDS WITH FAILURE MODE AND EFFECT ANALYSIS (FMEA) AND HAZARD IDENTIFICATION RISK ASSESSMENT (HIRA) METHODS

Case Study at SME MEBEL

ABSTRACT

There are still many risks and work hazards that might befall workers at any time in the job activities of Furniture SMEs such as cutting wood, molding wood into blocks, and so on. There are still several risks and workplace hazards that might occur at any time. As a result, it may result in material, physical, financial, and production losses. To reduce and prevent workplace accidents that can result in injury or material loss, etc. The Risk Priority Number (RPN) value for the type of risk of being pinched by wood is 103.2, punctured by wood chips 91.728, and eye irritation 82.992 based on the results of identification and risk assessment using the FMEA (Failure Mode and Effect Analysis) method with questionnaire processing for 5 workers, respiratory problems 76.608, falling tools 71.672, exposed to chainsaw blades. The results of risk and hazard identification using the HIRA (Hazard Identification Risk Assessment) method found 23 potential hazards contained in 4 work aspects that can harm employees and owners. There are still severe and very severe category risk rating results with a risk rating value range of 15-25 from the four parts of work with 23 potential work hazards, and there are still many potential hazards with a moderate category scale with a value range of 6-12. Future improvements proposed to further improve occupational safety and health factors in the workplace by conducting routine control and supervision, as well as the use of PPE in accordance with predetermined standards and training, inspecting equipment and the work environment, and installing safety signs.

Keywords: FMEA, HIRA, Control, Risk, Hazard

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