

ANALISIS KESEHATAN DAN KESELAMATAN KERJA DENGAN METODE HAZARD AND OPERABILITY PADA AREA KERJA LANTAI PRODUKSI PT. MADUBARU (PG. MADUKISMO)

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ABSTRAK

Berdasarkan hasil observasi pada saat pelaksanaan tugas akhir pada bulan Januari sampai April 2023, penelitian ini berfokus pada bagian lantai produksi yang didalamnya terdapat Stasiun Penggilingan, Stasiun Pemurnian, Stasiun Penguapan (*Evaporasi*), Stasiun Masakan, Stasiun Putaran, Stasiun Penyelesaian. Pada 4 bulan terakhir ditemukan berbagai jenis sumber bahaya sebanyak 6 kali kecelakaan kerja, tercatat 1 kali kecelakaan kerja pada bagian Stasiun Putaran, 2 kali terjadi kecelakaan kerja pada Stasiun Kristalisasi, dan 3 sisanya terjadi kecelakaan kerja diluar area lantai produksi. Metode *Hazard and Operability Study* (HAZOP) dapat digunakan untuk mengidentifikasi kemungkinan terjadinya potensi bahaya untuk meminimalkan terjadinya potensi bahaya. Melalui pengolahan data menggunakan analisis penilaian risiko kecelakaan kerja, Penilaian tingkat *Likelyhood*, Penilaian tingkat *Severity*, dan *Risk Matrix*. Dari hasil penelitian ditemukan sebanyak 69 potensi bahaya kerja di bagian stasiun proses produksi PG. Madukismo. Di Stasiun Persiapan 7 aktivitas dan 16 potensi bahaya. Stasiun Gilingan dari 4 aktivitas ada 11 potensi bahaya. Stasiun Pemurnian dari 5 aktivitas ada 10 potensi bahaya. Stasiun Penguapan 1 aktivitas dan 7 potensi bahaya. Stasiun Kristalisasi ada 3 aktivitas dan 9 potensi bahaya. Stasiun Putaran ada 3 aktivitas dan 6 potensi bahaya yang dapat ditemukan. Stasiun Penyelesaian ada 3 aktivitas dan 10 potensi bahaya. Dari hasil pengolahan data kecelakaan kerja pada area proses produksi di PG. Madukismo ditemukan 6 bahaya / hazard dengan nilai risiko level (T – Risiko Tinggi). Ditemukan 13 bahaya / hazard dengan nilai risiko level (S – Risiko Sedang). Dan ditemukan 8 bahaya / hazard dengan nilai risiko level (R – Risiko Rendah).

Kata Kunci: K3, Bahaya, Risiko, Kecelakaan, *Hazard and Operability Study*

ANALYSIS OF OCCUPATIONAL HEALTH AND SAFETY USING THE HAZARD AND OPERABILITY METHOD IN THE WORK AREA OF PT. MADUBARU (PG. MADUKISMO)

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ABSTRACT

Based on the results of observations during the implementation of the final project from January to April 2023, this research focuses on the production floor section which includes Milling Stations, Refining Stations, Evaporation Stations, Cooking Stations, Rotation Stations, and Finishing Stations. In the last 4 months, 6 work accidents have been found with various types of hazards, 1 work accident was recorded at the Puteran Station, 2 work accidents occurred at the Crystallization Station, and the remaining 3 work accidents occurred outside the production floor area. The Hazard and Operability Study (HAZOP) method can be used to identify the possibility of a potential hazard occurring in order to minimize the occurrence of a potential hazard. Data processing is carried out using work accident risk assessment analysis, Likelihood level Assessment, Severity level Assessment, and Risk Matrix. From the research results, it was found that there were 69 potential work hazards in the production process station section of the Madukismo Sugar Factory. At the Preparatory Station there are 7 activities and 16 potential hazards. Grinding Station from 4 activities there are 11 potential hazards. Purification Station of 5 activities there are 10 potential hazards. Evaporation Station 1 activity and 7 potential hazards. The Crystallization Station has 3 activities and 9 potential hazards. Puteran Station has 3 activities and 6 potential hazards that can be found. Settlement Station there are 3 activities and 10 potential hazards. From the processing of work accident data, in the production process area at the Madukismo Sugar Factory, 6 hazards were found with a level risk value (T – High Risk). Found 13 hazards / hazards with a level risk value (S – Medium Risk). And found 8 hazards with a level risk value (R – Low Risk).

Keywords: K3, Hazard, Risk, Accident, Hazard and Operability Study

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