

Penilaian risiko keselamatan dan kesehatan kerja pada proses pekerjaan pengelasan di area fabrikasi PT XYZ Kota Bekasi tahun 2022 = Risk assessment of occupational safety and health in welding work process in the fabrication area at PT XYZ Bekasi City in 2022

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Abstrak

Kompleksitas industri manufaktur mesin dan perlengkapan melibatkan beragam jenis proses produksi, salah satunya adalah pekerjaan pengelasan. Proses pekerjaan pengelasan merupakan salah satu proses industri terpenting dalam menggabungkan komponen logam atau baja. Beragam bahaya ditemukan pada proses pengelasan seperti percikan logam las, percikan api las, emisi asap las, dan manual handling selama pekerjaan berlangsung menimbulkan risiko keselamatan dan kesehatan kerja bagi pekerja. Penelitian ini bertujuan untuk mengidentifikasi dan menilai risiko keselamatan dan kesehatan kerja pada proses pekerjaan pengelasan di area fabrikasi PT XYZ. Tahap identifikasi bahaya dan risiko dilakukan secara kualitatif melalui observasi, kegiatan brainstorming, wawancara, dan telaah dokumen perusahaan menggunakan metode Hazard and Operability Study (Studi HAZOP). Setelah itu, dilakukan analisis penilaian risiko semi kuantitatif dengan menilai perkalian dari kriteria probability dan severity berdasarkan matriks penilaian risiko PT XYZ. Hasil penelitian menunjukkan bahwa terdapat 12 tahapan proses pekerjaan pengelasan. Teridentifikasi 52 bahaya dengan dengan 49 risiko dari proses pekerjaan pengelasan. Tingkat risiko yang didapatkan meliputi 23 risiko dengan kategori sangat tinggi, 9 risiko dengan kategori tinggi, dan 17 risiko dengan kategori sedang. Penilaian risiko melibatkan pengendalian risiko sehingga nilai tingkat risiko dapat diturunkan melalui pengendalian yang telah ada dan rekomendasi pengendalian yang diberikan peneliti.

.....The complexity of the machinery and equipment manufacturing industry involves various types of production processes, one of which is welding work. Welding is one of the most important industrial processes in joining metal or steel components. Various hazards found in the welding process such as welding metal sparks, welding sparks, welding fumes emissions, and manual handling during work pose risks to occupational safety and health for workers. This study aims to identify and assess occupational safety and health risks in the welding work process in the PT XYZ fabrication area. The hazard and risk identification stage is carried out qualitatively through observation, brainstorming activities, interviews, and reviewing company documents using the Hazard and Operability Study (HAZOP Study). After that, a semi-quantitative risk assessment analysis was carried out by assessing the multiplication of probability and severity criteria based on PT XYZ's risk assessment matrix. The results showed that there were 12 stages of the welding work process. Identified 52 hazards with 49 risks from the welding work process. The level of risk obtained includes 23 risks with very high categories, 9 risks with high categories, and 17 risks with moderate categories. Risk assessment involves risk control so that the value of the risk level can be reduced through existing controls and control recommendations provided by researcher.