

**ANALISIS POTENSI BAHAYA DAN PENILAIAN RISIKO TERHADAP
KESELAMATAN DAN KESEHATAN KERJA MENGGUNAKAN
METODE *HAZARD IDENTIFICATION, RISK ASSESSMENT, AND RISK
CONTROL* (HIRARC) PADA BENGKEL KONSTRUKSI**

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ABSTRAK

Keselamatan dan Kesehatan Kerja (K3) merupakan aspek krusial dalam industri konstruksi, mengingat tingginya risiko kecelakaan akibat *unsafe human act* (tindakan tidak aman) dan *unsafe condition* (kondisi tidak aman). Penelitian ini bertujuan untuk menganalisis potensi bahaya dan menilai risiko keselamatan kerja di Bengkel Assoka Wijaya menggunakan metode *Hazard Identification, Risk Assessment, and Risk Control* (HIRARC). Metode ini digunakan untuk mengidentifikasi sumber bahaya, menilai tingkat risiko, serta menentukan strategi pengendalian yang tepat. Penelitian ini menggunakan pendekatan deskriptif kualitatif, dengan data yang dikumpulkan melalui observasi, wawancara, dan analisis dokumentasi terkait kecelakaan kerja. Penelitian ini dilakukan selama 4 bulan dari Agustus – Desember 2024. Hasil penelitian menunjukkan bahwa terdapat 62 jenis bahaya dengan kriteria risiko sangat rendah, risiko rendah, risiko sedang, dan risiko sangat tinggi pada 6 jenis pekerjaan di Bengkel Assoka Wijaya, termasuk bahaya mekanik, listrik, termal, kimia, dan ergonomi. Keenam jenis pekerja tersebut antara lain pada proses pembubutan terdapat 13 bahaya, proses frais 9 bahaya, proses pengelasan 16 bahaya, proses pengeboran 8 bahaya, proses pemotongan 10 bahaya, dan pada proses pengecatan 6 bahaya. Sehingga diperlukan tindakan pengendalian berdasarkan hierarki pengendalian risiko, seperti pengendalian teknis, pengendalian administratif, dan penggunaan Alat Pelindung Diri (APD).

Kata-kata kunci : Kecelakaan kerja, bahaya, risiko, HIRARC, bengkel konstruksi

**ANALYSIS OF POTENTIAL HAZARDS AND RISK ASSESSMENT OF
OCCUPATIONAL SAFETY AND HEALTH USING HAZARD
IDENTIFICATION, RISK ASSESSMENT, AND RISK CONTROL (HIRARC)
METHOD IN CONSTRUCTION WORKSHOPS**

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ABSTRACT

Occupational safety and health is a crucial aspect of the construction industry, considering the high risk of accidents due to unsafe human acts and unsafe conditions. This study aims to analyze potential hazards and assess occupational safety risks at the Assoka Wijaya Workshop using the Hazard Identification, Risk Assessment, and Risk Control (HIRARC) method. This method is used to identify the source of danger, assess the level of risk, and determine the appropriate control strategy. This study uses a qualitative descriptive approach, with data collected through observation, interviews, and documentation analysis related to work accidents. This research was conducted for 4 months from August to December 2024. The results of the study showed that there were 62 types of hazards with the criteria of very low risk, low risk, medium risk, and very high risk in 6 types of work at Bengkel Assoka Wijaya, including mechanical, electrical, thermal, chemical, and ergonomic hazards. The six types of workers include 13 hazards in the turning process, 9 hazards in the milling process, 16 hazards in the welding process, 8 hazards in the drilling process, 10 hazards in the cutting process, and 6 hazards in the painting process. Therefore, control measures are needed based on the risk control hierarchy, such as technical control, administrative control, and the use of Personal Protective Equipment (PPE).

Keywords : Work accidents, hazards, risks, HIRARC, construction workshops