

## **ABSTRACT**

**Background:** Occupational Health and Safety (K3) is one of the efforts to create a healthy and safe work environment, so as to reduce the probability of work accidents or illnesses due to negligence which results in work productivity deficiencies. Companies must have K3 aspects, because it is one of the factors preventing work accidents. This research aims to analyze potential hazards using the Hazard Identification, Risk Assessment, and Risk Control (HIRARC) method at the PT Palm Oil Mill. Perkebunan Nusantara VI Bunut Business Unit.

**Research Method:** This study uses a type of descriptive qualitative research. The research informants were determined using purposive sampling which amounted to 8 informants, including 1 key informant, namely the Head of the Factory and 7 main informants, namely K3 Experts, Processing Assistants, Engineering Assistants, Sorting workers, Kernel workers, Boiler workers and Machine Room workers. Data collection techniques are carried out with primary data, observation, in-depth interviews, and documentation. The validity of the data was tested using the triangulation technique.

**Results:** The research results show that there is a potential danger at the PT Palm Oil Mill. Perkebunan Nusantara VI Bunut Business Unit covers various potential hazards that threaten the safety and health of workers, both physical, mechanical, and related to fuel and electricity. Some of the main dangers found include injuries from rotating machines, heavy equipment, exposure to heat and steam, fires, explosions, oil spills, puncture wounds from palm oil thorns, hearing loss due to machine noise, as well as work environment hazards such as high temperatures and exposure to light UV.

**Conclusion:** Risk control measures at the PT Palm Oil Factory. Perkebunan Nusantara VI Bunut Business Unit involves five methods of elimination, substitution, technical engineering, administrative control, and use of PPE. Although these measures are effective in reducing accidents, the main challenge lies in the consistency of implementation and worker discipline in using complete PPE. Continuous evaluation and improvement, incl increased safety awareness and regular training, are essential to creating a safer work environment and reducing the risk of accidents.

**Keywords:** HIRARC, Hazard Identification, Risk Assessment, Risk Control

## ABSTRAK

**Latar Belakang:** Kesehatan dan Keselamatan Kerja (K3) termasuk salah satu upaya menciptakan lingkungan kerja yang sehat dan aman, sehingga dapat mengurangi probabilitas kecelakaan kerja atau penyakit akibat kelalaian yang mengakibatkan defisiensi produktivitas kerja. Perusahaan harus memiliki Aspek K3, karena merupakan salah satu faktor mencegah kecelakaan kerja. Penelitian ini bertujuan untuk menganalisis potensi bahaya dengan metode Hazard Identification, Risk Assessment, and Risk Control (HIRARC) di Pabrik Kelapa Sawit PT. Perkebunan Nusantara VI Unit Usaha Bunut.

**Metode Penelitian:** Penelitian ini menggunakan jenis penelitian kualitatif deskriptif. Informan penelitian ditentukan dengan menggunakan purposive sampling yang berjumlah 8 informan diantaranya 1 informan kunci yaitu Kepala Pabrik dan 7 informan utama yaitu Ahli K3, Asisten Pengolahan, Asisten Teknik, pekerja Sortasi, pekerja Kernel, pekerja Boiler dan pekerja Kamar Mesin. Teknik pengumpulan data dilakukan dengan data primer, observasi, wawancara mendalam, dan dokumentasi. Uji keabsahan data menggunakan teknik triangulasi.

**Hasil:** Hasil penelitian menunjukkan terdapat potensi bahaya di Pabrik Kelapa Sawit PT. Perkebunan Nusantara VI Unit Usaha Bunut mencakup berbagai potensi bahaya yang mengancam keselamatan dan kesehatan pekerja, baik fisik, mekanis, maupun terkait bahan bakar dan listrik. Beberapa bahaya utama yang ditemukan antara lain cedera akibat mesin berputar, alat berat, paparan panas dan uap, kebakaran, ledakan, tumpahan minyak, luka tusuk dari duri kelapa sawit, gangguan pendengaran karena kebisingan mesin, serta bahaya lingkungan kerja seperti suhu tinggi dan paparan sinar UV.

**Kesimpulan:** Langkah-langkah pengendalian risiko (*Risk Control*) di Pabrik Kelapa Sawit PT. Perkebunan Nusantara VI Unit Usaha Bunut melibatkan lima metode eliminasi, substitusi, rekayasa teknik, pengendalian administrasi, dan penggunaan APD. Meskipun langkah-langkah ini efektif dalam mengurangi kecelakaan, tantangan utama terletak pada konsistensi implementasi dan kedisiplinan pekerja dalam menggunakan APD secara lengkap. Evaluasi dan perbaikan berkelanjutan, termasuk peningkatan kesadaran keselamatan dan pelatihan rutin, sangat penting untuk menciptakan lingkungan kerja yang lebih aman dan mengurangi risiko kecelakaan.

**Kata Kunci:** HIRARC, Identifikasi Bahaya, Penilaian Risiko, Pengendalian Risiko