

ABSTRACT

Occupational Safety and Health (OHS) is an important aspect in industrial production activities, including at PT PLN (Persero) PUSHARLIS UP2W VI which is engaged in producing grab buckets. This study aims to identify potential hazards, assess the level of risk, and develop control measures to prevent work accidents. The method used is HIRADC (Hazard Identification, Risk Assessment, and Determining Control) with an approach of hazard identification, risk assessment based on severity and likelihood, and determination of control measures. The results showed that 31 sources of hazards were identified, with 74.2% included in the medium risk category, 19.4% low risk, and 6.5% high risk. The hazards found included mechanical, physical, and ergonomic aspects in the cutting, welding, grinding, drilling, turning, and assembly processes. Risk control was carried out through two substitution actions, four engineering actions, and six administrative actions and the use of Personal Protective Equipment (PPE). After the controls were implemented, most risks were in the low category. The conclusion shows that the HIRADC method is effective in mapping and reducing OHS risks. It is recommended that companies regularly update documents, improve training related to K3, tighten supervision of PPE use, and carry out routine inspections to create a safer, more adaptive, and sustainable work environment.

Keywords: *Grab Bucket, HIRADC, Occupational Safety and Health, Potential Hazards, Risks*