

**HAZARD IDENTIFICATION AND RISK ASSESSMENT OF FLEXIBLE
HOSE USE USING THE HIRARC METHOD AT PT. KUTAI
TIMBER INDONESIA, PROBOLINGGO**

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ABSTRACT

The use of Flexible Hose in the dust collector system at Production Area 2 of PT. Kutai Timber Indonesia poses occupational safety risks due to damaged components and non-standard installation. This study aimed to identify potential hazards, assess risk levels, and formulate risk control recommendations using the HIRARC method. This descriptive evaluative study collected data through observation, interviews, documentation, and technical triangulation involving 6 informants (3 operators and 3 K3 personnel/supervisors). The results identified 7 potential hazards with risk scores ranging from 3 to 15, categorized into 3 high-risk hazards (42.9%), 2 medium-risk hazards (28.6%), and 2 low-risk hazards (28.6%). The highest risk score of 15 was found in a torn Flexible Hose patched with duct tape, followed by a score of 12 for an unserviceable Flexible Hose and a nearly detached hose. Risk control recommendations prioritized high risks through replacing the torn hose, inspecting unserviceable Flexible Hose first to determine permanent repair or replacement, and tightening nearly detached hose connections. Controls were supported by engineering controls (installing clamps and permanent supports, adjusting routes) and administrative controls (periodic inspections, documentation, and K3 supervision).

Keywords: *Flexible Hose, HIRARC, Hazard Identification, Risk Assessment, Risk Control.*