

## ABSTRACT

PT. Pindo Deli Pulp and Paper Mills 2 Karawang is one of the largest paper mills in Indonesia. In this project, there are many types of high risk working activities, especially slliter knife in rewinder macine. The purposes of this study is to applied Hazard Identification, Risk Assessment and Determining Controls (HIRADC) in rewinder machine NCR Carbonless Division PT. Pindo Deli Pulp and Paper Mills 2 Karawang.

This research was conducted by observational with cross-sectional design. Observation was held the sources of hazards and effort to control. Interviews were conducted to workers of rewinder machine NCR Carbonless Division PT. Pindo Deli Pulp and Paper Mills 2 Karawang. Variabel of the research are activities in rewinder machine, hazard identification, risk assessment, risk control effectiveness and residual risk.

The result of hazard identification, showed that there were 44 potential hazards that cause 44 risk. Risk assessment that has been done conclude that there were 3 very high risk, 8 priority 1 risk, 26 substantial risk, and 7 priority 3 risk. Risk control effectiveness was resulted by risk operator, equipment, and environmetof rewinder machine which ranged from 0% until 100%. Risk management assessment resulted residual risks consist of 12 substantial risk, 4 priority 3 risk and 28 acceptable risk.

The suggestion can be given of this study is ISD of PT. Pindo Deli Pulp and Paper Mills 2 should develop more regulation of working with rewinder machine and evaluate their implementation of risk control to minimize residual risk of this activities because it contains risk as substansial and priority 1.

**Keywords:** rewinder, hazard identfication, risk assessment, risk control, residual risk

## ABSTRAK

PT. Pindo Deli Pulp and Paper Mills 2 Karawang adalah salah satu perusahaan kertas terbesar di Indonesia. Pada proses produksi pabrik ini terdapat berbagai jenis aktivitas yang berisiko tinggi terutama pada penggunaan slitter knife mesin rewinder. Tujuan dari penelitian ini adalah untuk menerapkan metode *Hazard Identification, Risk Assessment and Determining Control* (HIRADC) sebagai upaya pencegahan kecelakaan kerja pada pekerja Mesin Rewinder NCR Carbonless Division PT. Pindo Deli Pulp and Paper Mills 2.

Penelitian ini dilaksanakan secara observasional dengan rancangan *cross sectional*. Observasi dilaksanakan terhadap sumber bahaya dan upaya pengendalian. Wawancara dilakukan kepada pekerja di mesin rewinder NCR Carbonless Division PT. Pindo Deli Pulp and Paper Mills 2.. Variabel penelitian adalah pekerjaan pada mesin rewinder, *hazard*, identifikasi bahaya, *risk assessment*, efektivitas pengendalian risiko dan *residual risk*.

Hasil dari identifikasi bahaya yang telah dilakukan, diketahui terdapat 44 potensi bahaya yang dapat menimbulkan 44 risiko. *Risk assessment* yang dilakukan didapatkan tingkat risiko yaitu 3 risiko *very high*, 8 risiko *priority 1*, 26 risiko *substantial*, dan 7 risiko *priority 3*. Efektivitas pengendalian risiko yang dilakukan berdasarkan hasil inspeksi baik pada operator, alat dan lingkungan berada pada rentang 0% sampai dengan 100%. Penilaian manajemen risiko menunjukkan masih terdapat *residual risk* yaitu 12 risiko *substantial*, 4 risiko *priority 3* and 28 risiko *acceptable*.

Saran yang dapat diberikan dari penelitian ini adalah ISD PT. Pindo Deli Pulp and Paper Mills 2 perlu mengembangkan peraturan yang lebih spesifik mengenai pekerjaan dengan mesin rewinder dan mengevaluasi upaya pengendalian risiko yang diterapkan untuk meminimalisi *residual risk*, mengingat pekerjaan ini masih memiliki tingkat risiko yang *substantial* dan *priority 1*.

**Kata kunci:** *rewinder, hazard identification, risk assessment, risk control, residual risk*