ABSTRACT

ANALYSIS FACTORS INFLUENCE TO MINING ACCIDENT USING HFACS-MI FRAMEWORKS

(A Study at Underground Coal Mining of CV. ABC)

Underground coal mining of CV. ABC has 14 mine tunnels. The risks of underground mine accident are high, more depth of mining will increase the amount of gasses, more complex underground mining technology is applied. Based on data from the Office of Mines, Industry, Trade, and Cooperatives (Disperindagkop) Sawahlunto, during 2010 – 2012, CV. ABC reported that there were 4 cases of mine accidents with severe injury categories. And based on data from CV. ABC, in 2013, there were 9 cases of mine accidents with minor categories.

Mining accidents must be prevented and must not to be happen again. The aim of research was analyzing the factors influence mine accidents using Human Factor Analysis and Classification System in Mining Industry frameworks. This was a cross sectional analytic survey research. The method of research used mixed methods, which combine qualitative and quantitative.

Analyzing quantitative data by using *Chi-square* and Logistic Regression test, firstly to analyze the correlation between all independences variable with mining accidents, and then to mapping factors influence mining accidents. The logistic regression result as multivariat that there were contextual relationship where ($P<0,05$) for the characteristics are unsafe acts, mining technology, communication personnel, and physical readiness before work. The result of quantitative compared with the result of qualitative to know the difference or a combination.

The recommended that the efforts to control mining accidents include : providing additional knowledge and attitude improvement work to employees, conducting for analyzing and technical improving to the application of mining technology, pushing the head of the tunnel and employees to create a climate conducive communication without any distinction, providing direction to all employees as well as campaigning for quality sleep.

Keywords : mining accident, HFACS-MI, coal underground mining