ABSTRACT

Construct implementation for multi level building, many factors attached to them. One of the factors is chemical factor, and dust is the one of them. Exposure of dust in a period of time can cause lung disease. Lung disease is one of the reasons deathly caused because of deadly disease. PT Construction X is a construction services company that is currently completing the construction of buildings.

This research used cross sectional study design. Researching are doing by measurements, examination and questionnaire. Respondents were finishing workers in PT Construction X with a total populations are 18 workers. The sample of the research is the total population. Variables studied form of the dependent variables and independent variables. Dependent variable is pulmonary function, while the independent variables are long exposure, age, nutritional status, smoking habit, the habit of using mask, exercise habit and period of worked. Data analysis used cross tabulation method.

Based on the result of dust measurement, it was found average of the concentration of dust exposure under the standard of dust, it was 1,3425 mg/Nm^3. The result of pulmonary function of PT Construction X worker obtained by 33.3% workers had lung function disorder. So, the workers had same level of dust exposure. There are 88.9% workers not safe because of dust exposure through RQ calculation.

The conclusion of this research is although the concentration of dust in the project area of PT Construction X is under the standard of dust, but still has risk to cause health problems. It evidenced by complaints of respiratory and eyes irritation, as well as unsafe levels of risk because of dust exposure. Workers must to wear mask that compatible when working and must having work shift and work site rotation.

Keywords: dust exposure, pulmonary function, construction