

## ABSTRACT

Sandblasting process in Indonesia were mostly still done manually, in the sense that workers are holding high-pressured hose to sprayed the abrasive material. This job contained some hazards such as shock effect on workers, who may pose a danger to himself or worker in the vicinity, the wound on the surface of the workers skin or eyes, and silica dust buildup in the lungs, or also called silicosis. This study was conducted to analyze correlation between predisposing, reinforcing, and enabling factors with PPE usage behavior on worker in sandblasting division at PT Bangun Sarana Baja.

This study is an observational analytic with cross sectional design. Data of knowledge, attitudes, perception, motivation, the role of co-workers, the role of supervisor, HSE promotion, HSE training, availability of PPE and HSE regulations obtained from interviews to all 11 people who worked at sandblasting division of PT Bangun Sarana Baja.

PPE usage behavior of 9,1 % workers are in the unsafe category, results analysis with contingency coefficient is known that motivation factor has a value at 0.707, the factor of co-workers role has a value equal to 0.459, and the factor of knowledge, attitudes, supervisors role, as well as HSE training has a value equal to 0,100, while the perception factor, HSE promotion, availability of PPE, and HSE regulations showed that 100% of workers are in the good category.

Motivational factors have a strong correlation with the PPE usage behavior, co-workers role factors have correlation in the medium category, the factors of knowledge, attitudes, role of supervisor, HSE training has a very weak correlation to the PPE usage behavior, meanwhile perception, HSE promotion, availability of PPE, and HSE regulations factors of all workers are included in good categories.

**Keywords:** Predisposing, Reinforcing, Enabling, Sandblasting, Personal Protective Equipment