

ABSTRACT

PT Menara Cipta Mulia is a company engaged in tin mining in Kelapa Kampit District, East Belitung Regency, Bangka Belitung Islands Province. One of the things that is important in terms of mining or more significant in terms of smelting activities is the condition of occupational safety and health, namely conditions where workers can work safely and comfortably. In carrying out the smelting process, the stages of the activity are not paid attention to, causing potential unsafe conditions and resulting in work accidents such as explosions, splashes of hot material, bursts of fire, exposure to dust and falling on ingots. From the work accidents that occurred in the smelting process, it is necessary to identify potential hazards in order to find out more clearly the origin of the accident and then carry out a risk assessment of the existing accident whether the accident is in the high, medium or low category. And the need to carry out risk control to anticipate or reduce accidents that exist in the smelting process. Therefore it is necessary to identify hazards and risk assessments in smelting activities using the HIRADC (Hazard Identification, Risk Assessment and Determining Control) method which aims to identify the hazards that can be caused by each job in an organization which is then carried out a risk assessment and control of these risks. The results of this study are that there are several potential work accident hazards at PT Menara Cipta Mulia. Then the results of the risk assessment are 3 categories, namely High, Medium, Low. Meanwhile, control is carried out by making improvements to each tool used and can also make alternatives that facilitate the smelting process, increase the use of PPE, increase security in operational areas.

Keywords: *Potential hazard, Occupational Safety and Health (K3), Hiradc*