ANALISIS METODE HAZARD AND OPERABILITY STUDY (HAZOP) PADA MESIN *BATCHING PLANT* DI PT. DUTA BORNEO ABADI

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Abstract

PT. Duta Borneo Abadi is a company that produces cast cement on a large scale as their main product. In the production process, the main machine used is a batching plant machine. The batching plant machine has potential hazards so it is necessary to identify and analyze hazards using the HAZOP method. Hazard and Operability Study is a technique to identify and analyze hazards to review the hazards of machine operation processes. The data used in this study are engine damage data, engine maintenance data, pipe and instrument diagram data, and process flow diagram data. Based on the observations that have been made, 6 study points (nodes) on the batching plant machine were determined to make it easier to identify the hazards that arise. The nodes are the aggregate storage zone, the weighing zone, the distribution zone, the cement storage zone, the water storage and distribution zone, and the mixing zone. The result of the hazard analysis using the HAZOP worksheet shows that there are 17 potential hazards, consisting of 10 small-risk hazards and 7 medium-risk hazards. This risk level is obtained from the multiplication of likelihood and consequence. Based on the potential risks that occur, safeguards are required for each hazard that might occur and so as daily checksheet to check engine components every month to avoid the emergence of hazards.

Keywords: Mechine, Hazard, HAZOP, *Batching Plant*