ABSTRACT

PT. Telehouse Engineering is a national private company engaged in mechanical, electrical and infrastructure manufacturing. At present, PT. Telehouse Engineering has already certified with ISO 9001:2008, ISO 14001, and ISO 18001. PT. Telehouse Engineering has one product line called sheet metal. Sheet metal is produced by the Sheet Metal Strategic Business Unit (SBU). One of the products included in the sheet metal product line is the indoor cabinet.

Indoor cabinet is a product that is used as a storage device for a company's electrical device. There are two main processes in the production process of indoor cabinets, namely design (or called engineering) & production planning and fabrication. At present, in the process of developing indoor cabinet products there are several actual conditions that have the potential to be a risk. SBU Sheet Metal PT. Telehouse Engineering has not implemented risk management. Previous international certifications can be an opportunity for the company to implement risk management based on ISO 31000:2018.

This research is carried out by conducting a risk assessment that begins with determining risk criteria, risk identification, risk analysis, and risk evaluation. Based on the results of the risk assessment, there were 9 risks which were divided into low, medium and high categories. The risk that will be given a treatment is high category risk, which is an error in tracing the work process at a work station. Research is continued with risk treatment planning and risk treatment design in the form of a standard operating procedure (SOP). *The SOP must meet Clause 6.1 ISO 9001:2015, which is one of the requirements in gap analysis that must be fulfilled. Risk treatment consists of mitigation treatment in the form of work environment arrangement, calculation of cycle time and minimum number of work stations, determination of machine operation, and contingency treatment in the form of staff training and job rolling.*

Keywords: *risk assessment*, *risk treatment*, SOP, *fabrication*, *engineering*