ABSTRACT

PT XYZ is a company engaged in manufacturing steel pipes. PT XYZ already has ISO 9001:2015 quality certification. However, the company has not implemented these standards properly, there are many risks that hinder the steel pipe production process. This is because PT XYZ has not planned risk prevention measures.

The method used is a risk management process by conducting a risk assessment based on ISO 31000:2018. The stages of conducting a risk assessment are determining risk criteria, risk identification, risk analysis, and risk evaluation. Based on the results of the risk assessment, there were 5 risks which were divided intocategories low, medium, high. The risk that is given treatment is only the risk in thelevel category high, which requires additional time to order raw materials and the occurrence of stacking orders.

After the risk assessment process is carried out, a treatment plan is then carried out to handle the existing risks. The results of risk treatment will be used to design an SOP for the application of risk treatment, the design of the SOP made must meet the requirements of ISO 9001:2015 clause 6.1.

The proposed SOP design for the application of risk treatment has considered the risks that must be treated based on the risk treatment and the results of the gap analysis. The designed SOP includes objectives, scope, responsibilities, description of the SOP scheduling process, and process performance measures.

Keywords— **ISO 9001:2015, ISO 31000:2018, *Risk Assessment, Risk Treatment, Standart Operating Procedure***