ABSTRACT

PT.Multi Instrumentasi is a manufacturing company that produces water meter. Water meter consist of four major parts, there are body casing, head casing, tube fixed coupling and nute fixed coupling. The part that produced by PT. Multi Instrumentasi is just two parts, there are body casing and head casing, therefore the other parts are obtained from supplier and can be assumed in good condition. Based on reject history date in 2014,body casing is the part that more likely to be reject. So, body casing is chosen as a research object.

In an effort to minimize EHS waste, use lean six sigma methods with the steps taken following the stage of DMAI (define, measure, analyze, improve).In addition to the stage DMAI also used the tools of lean for production process improvement of body casing. At define stage ,researcher define SIPOC diagrams and value stream mapping for describe the production process of body casing. The measure stage, determining CTQ,determining safety first at work. The analyze stage, determine the root cause of the problem with fishbone chart, 5 Whys, and FMEA. The improve stage given the proposed improvement of the results of FMEA to improve the quality of the body casing production process. Those improvements are, make a box for storing the safety tools, make a bigger ventilation at the workstations which produced the hottest temperature. Installation turbin ventilator to decrease the temperature at pengecoran area.

***Keyword**: Lean six sigma, DMAIC, ehs waste*