

## **ABSTRACT**

*PT. Garuda Maintenance Facility AeroAsia (PT. GMF AA) is a subsidiary of PT. Garuda Indonesia that handle in the Maintenance, Repair and Overhaul. This research was conducted at Turbine Component Repair (TZP-3) divisions. The object of research was combustion liner. From data that collected during the February (2014) to April (2015) there was a defect in combustion liner after repairing process. The percentage of defect was 33,3%. This percentage does not match with the company target where the company target is 0%. This defects was caused by man and working method. If the number of defects is not being reduced, it will cause delays in delivery of combustion liner to the customer. Therefore, defects that occur during repairing process should be reduced by using six sigma method trough define, measure, analyze and improvement. Six sigma is a tool for reducing defect. The dominant defect that occurred during February (2014) to April (2015) was crack. Causes of crack defects are less experienced welder and a dressing process is not perfect. Less experienced welder can be solved with reward. Improvement was selected through scoring analysis and giving reward get the highest score is 2,6. Imperfect dressing process can be solved with making table with a clip from wood and form that contains information regarding the number of parts that must be dressed. Clip has function as a marker for the initial process. Improvement by making table with a clip from wood has been selected through scoring analysis. This improvement get the highest score is 2,2.*

**Key word:** *six sigma, defect, DMAIC, quality control*