

Penerapan Metode FMEA dan FTA Dalam Menganalisis Risiko Kegagalan Pada Mesin Wrapping Minuman Serbuk di Line 3 (*Application of FMEA and FTA Methods in Analyzing the Risk of Failure on Powdered Beverage Wrapping Machine in Line 3*)

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ABSTRACT

The development of technology today makes people tend to choose practical things, one of which is drinks. This allows the creation of various types of instant drinks, one type of drink that is currently developing is a powder type drink. In maintaining the quality of the product, a secondary packaging machine is used, namely a wrapping machine. On this machine there are several problems that occur, therefore identification and analysis of the risk of failure that occurs during the production process takes place to prevent failure by looking for the source of the failure to the root. The methods used are Failure Mode and Effect (FMEA) and Fault Tree Analysis (FTA). The results of this study there are 3 types of reject causes that have the highest RPN value, namely product distance and sensor error (product reject) with an RPN value of 100 and temperature setting errors with an RPN value of 80.. In the FTA analysis, improvement proposals are obtained to reduce the number of defects that occur, namely checking machine components regularly, making conveyor barrier designs, autonomous maintenance of employees, assessing employee performance and conducting regular training. Based on the analysis using FMEA and FTA methods, it can be seen the cause of failure in the secondary packaging process of the wrap machine.

Keyword : FTA, FMEA, wrapping machine, secondary packaging, Risk Priority Number (RPN)