

ABSTRACT

PT. Agronesia Divisi Agropas is a company that manufactures plastic package for mineral water industries in West Java. PT. Agronesia Divisi Agropas has three kinds of products which are cup, preform, and bottle. In these three products, preform and bottle have a higher rejection rate than company's target 1% of productions. Based on company's report on first semester of 2012, average of percentage reject preform and bottle are 2,37% dan 3,40%. Production process of preform and bottle is production in line which has a small process cycle efficiency that is 16,2%. In order to research its problem could be using a Lean Six Sigma to find the cause of rejection, and take a remedial action using Theory Of Inventive Problem Solving (TRIZ).

Phases of research begins with the Define phase that is performed to identify focus of object's research and process mapping of production. In this phase a choosen focus of research is bottle product with type is B.60.10.145 and 7 characteristics of CTQ that were known. Next phase is Measure to determine performance of existing process. Analyze then performed to find the dominant type of rejection and its factor. The dominant type of rejections that were found are bottom putih and gelang with precentage 41,13% and 21,71% of total rejection. Final phase is Improve to repair the causes of dominant rejection using TRIZ which improvement is giving tolerance distance between operators, gypsum partition between operators, showing information of machine setting with colouring picture and a copy of information for each operators, using probability sampling technique with sample taken method of systematic random sampling at injection process and eliminating non value added activity at production process.

Key words : lean six sigma, TRIZ, Define-Measure-Analyze-Improve, waste, process of production improvement, plastic bottle, PT Agronesia Divisi Agropas.