

## **ABSTRACT**

*PT. Pertamina (Persero) Jakarta Lubricants Production Unit (UPPJ) is a company engaged in the production, distribution and marketing of oil products. Currently, there are 248 companies engaged in the processing, distribution, marketing and lubricating oil imports in Indonesia. Amount not less that encourages PT. Pertamina UPPJ in an effort to improve the quality of its products and keep its market lead.*

*Quality Improvement made to the inspection process on 4 liter size bottle of lubricant at the Material Quality Control (MQC). Based on the amount of data production, data on the number of defective products, and the percentage of defects, in the period January to August 2012, the average amount of size 4 liter bottle lubricating defective escaped from the inspection process at the MQC still found in many parts of LOBP-1 and Gudang Nusantara. Therefore, quality improvement efforts will be made by the six sigma method to reduce the escape rate of 4 liter size bottle lubricant that defects in the inspection process at the MQC.*

*Six sigma method consists of 5 stages: define, measure, analyze, improve, and control. In the define stage, there are 9 CTQ potential that effect on product quality. By measuring the measure stage, it is known that the capability of the process indicated by the DPMO 1611,69 with 4.446 sigma level. Based on the analyze stage, 3 potential causes of failure are a priority to be repaired: improve the positioning of lighting tools for visual test, create tools for the measurement process, and create a display that reminds the operator of the discipline.*

**Key words:** *Quality, Six Sigma, CTQ Potential, Size 4 liter bottle of lubricant, DPMO, Sigma level, DMAIC*