

ABSTRACT

PT Holcim Indonesia Tbk is one of the companies that move in manufacture area. They produce cement and clinker. The rejected and defected products in clinker production process have made problems for this company. From June until Nopember 2004, 7,05% clinker production defected and it has made a big loss for the company. That is why, PT Holcim Indonesia Tbk needs to control and increase some factors that influence the quality of their products.

Six Sigma is a quality control method that is systematic, scientific and every decision based on facts and data. The main principal of Six Sigma is to reach perfection (3.4 DPMO) with controlling the process. Phases in implementation of Six Sigma are Define Measure Analyze Improve Control (DMAIC). At defining stage, the factors that influence the quality of clinker are identified and improved. Then, measuring quality of performance at output level is done at measurement stage. After existing conditions measured, the next stage is analysis for identifying sources that cause the quality problem in clinker also stability and process capability analysis. At improving stage, there will be given improvement process suggestions to minimize defect at clinker.

Based on measurement that has been done, the result is DPMO's value for all the process is 98.516 and the sigma capability is 2.8. Whereas the results of measurement that is done to the every periode are :

<i>periode</i>	<i>sigma</i>	<i>DPMO</i>
<i>Jul-05</i>	<i>2,8</i>	<i>91922</i>
<i>Agust-05</i>	<i>2,9</i>	<i>78534</i>
<i>Sep-05</i>	<i>2,7</i>	<i>120690</i>
<i>Okt-05</i>	<i>2,7</i>	<i>116550</i>
<i>Nop-05</i>	<i>2,8</i>	<i>103926</i>
<i>Des-05</i>	<i>2,9</i>	<i>76739</i>

Sigma's value and DPMO shows company performance level in controlling their quality process. The result above is not suitable with the purpose of Six Sigma method that is hoped to reach 3,4 DPMO (zero defects). Based on this result, company needs to do improvement continuously and controlling quality product of clinker continuously too.

Key words : Quality, Six Sigma, Clinker