# ABSTRAK

PT. Indocement Tunggal Prakarsa, Tbk bergerak pada bidang produksi semen. Pada saat ini perusahaan terutama di *Raw Mill Plant* 3 mengalami permasalahan perbaikan kualitas yang berhubungan dengan produk umpan *Kiln* (*Kiln Feed*) pada periode data pekan 35 - 48 tahun 2019. Oleh karena itu digunakan metode *six sigma* dengan tahapan DMAIC (*Define, Measure, Analyze, Improve, Control*) dengan tujuan menentukan jenis *defect* terbesar yang memiliki persentase cacat terbesar, menentukan penyebab jenis *defect* terbesar serta menentukan alternatif usulan berdasarkan pendekatan metode s*ix sigma* (DMAIC). Setelah dilakukan perhitungan serta analisis menggunakan metode s*ix sigma* (DMAIC), diketahui bahwa jenis *defect* terbesar adalah LSF (*Lime Saturation Factor*) *Out of Spec*. yang memiliki persentase sebesar 82 %. Berdasarkan hasil scoring FMEA dapat diketahui juga bahwa permasalahan yang paling mendesak untuk diperbaiki yaitu *Maintenance Reclaimer* tidak maksimal. Ditentukan alternatif usulan berupa koordinasi antar *departement* diperbaiki untuk penjadwalan *preventive maintenance,* inspeksi *part* mekanik yang ada di *reclaimer* di optimalkan serta *part* mekanik yang ada pada *reclaimer* harus selalu disediakan.

Kata Kunci : *Defect*, *Six Sigma*, DMAIC, Kualitas

# *ABSTRACT*

PT. Indocement Tunggal Prakarsa, Tbk *is engaged in cement production. At this time the company, especially in Raw Mill Plant 3 experiencing quality improvement problems associated with Kiln feed products in the data period week* 35-48 *in* 2019*. Therefore, the six sigma method is used with the* DMAIC *stages (Define, Measure, Analyze) , Improve, Control) with the aim of determining the largest defect type that has the largest percentage of defects, determining the cause of the largest defect type and determining alternative proposals based on the Six Sigma approach (*DMAIC*) approach. After calculating and analyzing using the Six Sigma method (*DMAIC*), it is known that the largest defect type is the* LSF *(Lime Saturation Factor) Out of Spec. which has a percentage of* 82 *%. Based on the results of the FMEA scoring, it can also be seen that the most urgent problem to be fixed is the Maintenance Reclaimer is not optimal. Determined alternative proposals in the form of coordination between departments improved for scheduling preventive maintenance, inspection of mechanical parts that are in the reclaimer is optimized and mechanical parts that are in the reclaimer must always be provided.*

*Keywords : Defect*, *Six Sigma*, DMAIC, *Quality*