ABSTRAK

Nama : Erna Subiarto
Program Studi : Teknik Industri
Judul : Peningkatan Efektivitas Mesin Menggunakan Analisa *Overall Equipment Effectiveness* (OEE) Dan *Six Big Losses* (Study Kasus: PT XYZ)

PT XYZ merupakaan perusahaan yang bergerak di bidang *plastic injection moulding*. Misi PT XYZ adalah memberikan produk sesuai persyaratan pelanggan, baik kualitas produk maupun kuantitas produk. Guna mendukung misi tersebut, maka mesin-mesin produksi pada PT XYZ harus memiliki efektivitas yang tinggi. Namun, permasalahan yang dihadapi PT XYZ adalah rendahnya efektivitas mesin karena *downtime* mesin tinggi. Untuk itu dilakukan pengukuran efektivitas mesin menggunakan nilai *Overall Equipment Effectiveness* (OEE) untuk mengetahui tingkat efektivitas mesin lalu analisis *Six Big Losses* dan analisis *FMEA* untuk dan mengetahui penyebabnya sehingga dapat memberikan rekomendasi perbaikan. Dari hasil perhitungan OEE periode bulan Oktober-Desember diperoleh rata-rata sebesar 59,60%. Berdasakan hasil analisis didapatkan usulan perbaikan yang dapat diberikan yaitu peningkatan skill operator melalui pelatihan dan pengarahan kedisiplinan operator, pengecekan *nozle* secara berkala, pengecekan *ring screw* secara berkala dan penyiapan *sparepart* yang kritis.

Kata kunci: Efektivitas, *OEE, six big Losses, FMEA*

ABSTRACT

Name : Erna Subiarto
Study program: Industrial Engineering
Title : Increasing Machine Effectiveness Using Overall Equipment Effectiveness (OEE) Analysis and Six Big Losses (Case Study: PT XYZ)

PT XYZ is a company engaged in the field of plastic injection molding. The mission of PT XYZ is to provide products according to customer requirements, both in product quality and product quantity. To support this mission, the production machinery at PT XYZ must have high effectiveness. However, the problem faced by PT XYZ is the low effectiveness of machine due to high machine downtime. For this purpose, measuring machine effectiveness uses the Overall Equipment Effectiveness (OEE) value to determine the level of machine effectiveness, then analysis of Six Big Losses and FMEA analysis for and knowing the causes so that they can provide recommendations for improvement. From the results of OEE calculation for the period October-December obtained an average of 59.60%. Based on the results of the analysis, it is suggested that improvements can be given, namely increasing operator skills through training and directing operator discipline, checking the nozzles regularly, checking the ring screws periodically and preparing critical spare parts.

Keywords: Effectiveness, OEE, six big Losses, FMEA