ABSTRACT

This study aims to evaluate the causes of the low performance of smelter machines, determining improvement proposals so that engine performance can be improved. This study uses a quantitative descriptive approach with the Overall Equipment Efectiveness (OEE) value analysis method. The results of OEE values are analyzed using the six big losses method so that loss factors can be found and analysis of root causes of performance using fishbone diagrams and then making recommendations for improvements that can be done using whys analysis. Based on the results of the study, the average value of OEE (Overall Equipment Effectiveness) of the smelter machine for the period January 2017 to December 2017 is still below the Standard World Class Manufacturing. The low OEE value is caused by the high value of losses that occur. Losses are derived from performance efficiency, namely Reduced Speed Losses caused by unstable input smelters, and Availability, which is a breakdown caused by the length of fire brick smelter replacement. While corrective steps can be taken by installing some additional equipment and improving methods on production machinery, periodic checking of machines, replacement of materials, arranging production plans and the handover between shift employees.
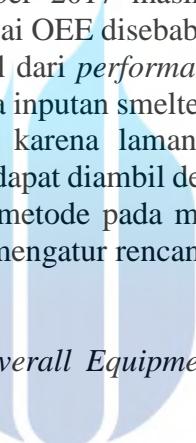
Keywords: *smelter machine, Overall Equipment Effectiveness (OEE), six big losses*

ABSTRAK

Penelitian ini bertujuan untuk mengevaluasi penyebab rendahnya kinerja mesin smelter, menentukan usulan perbaikan sehingga kinerja mesin dapat ditingkatkan. Penelitian ini menggunakan pendekatan kuantitatif deskriptif dengan metode analisis nilai *Overall Equipment Efectiveness* (OEE). Hasil nilai-nilai OEE dianalisis menggunakan metode *six big losses* sehingga dapat ditemukan faktor-faktor kerugian dan analisis akar penyebab kinerja menggunakan *diagram fishbone* dan kemudian membuat rekomendasi perbaikan yang dapat dilakukan dengan menggunakan *whys analysis*. Berdasarkan hasil penelitian, besarnya rata-rata nilai OEE (*Overall Equipment Effectiveness*) mesin smelter untuk periode Januari 2017 hingga Desember 2017 masih dibawah *Standard World Class Manufacturing*. Rendahnya nilai OEE disebabkan oleh tingginya nilai *losses* yang terjadi. *Losses* tersebut besaral dari *performance efficiency* yaitu *Reduced Speed Losses* yang disebabkan karena inputan smelter tidak stabil, dan *Availability*, yaitu *breakdown* yang disebabkan karena lamanya penggantian bata api smelter. Sementara langkah perbaikan dapat diambil dengan memasang beberapa peralatan tambahan dan meningkatkan metode pada mesin produksi, Pengecekan berkala mesin, penggantian material, mengatur rencana produksi dan adanya serah terima antar karyawan shift.

Kata Kunci : mesin smelter, *Overall Equipment Efectivness* (OEE), *six big losses*