

ABSTRAK

Tujuan penelitian ini adalah untuk mengukur efektifitas boiler dengan menggunakan metode Overall Equipment Effectiveness (OEE) yang didasarkan dengan faktor availability, performance efficiency dan quality rate. Serta menemukan faktor penyebab yang berpengaruh dominan pada rendahnya nilai OEE. Berdasarkan hasil perhitungan, nilai rata-rata dari OEE pada tahun 2022 unit Circulating Fluidized Bed High Pressure Boiler adalah sebesar 74,61%, apabila dibandingkan dengan standar JPIM (Japan Institute of Plants Maintenance) merupakan termasuk kelas perusahaan standar. Diterima jika hanya berada dalam proses perbaikan. Kerugian ekonomi, rendah daya saing. Hal ini dikarenakan terdapat Overhaul yang menyebabkan fluktuatif pada nilai OEE terpaut sangat jauh. Jika dilakukan analisa terhadap nilai OEE selama periode 2022 maka yang tertinggi adalah pada bulan Mei yaitu masing-masing sebesar 89,94%, apabila dibandingkan dengan JIPM (Japan Institute of Plants Maintenance), maka termasuk kelas perusahaan bagus, masuk kategori efek kelas dunia, baik daya saing. Apabila nilai OEE dapat dipertahankan atau ditingkatkan untuk menjaga efektifitas dari Boiler itu sendiri serta terus melakukan perbaikan terhadap sistem pemeliharaan mesin. Breakdown Time Losses dan Reduced Speed Losses adalah faktor Six Big Losses yang paling berkontribusi tinggi terhadap rendahnya nilai OEE pada unit Circulating Fluidized Bed High Pressure Boiler pada tahun 2022 yaitu masing-masing sebesar 25,15% dan 24,99% dengan faktor yang memengaruhinya yaitu kelalaian manusia, kerusakan mesin akibat umur pemakaian, suhu dan tekanan tinggi, kualitas air umpan dan kualitas bahan bakar batubara.

Kata Kunci : *Overall Equipment Effectiveness, Six Big Losses, Circulating Fluidized Bed High Pressure Boiler*

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ABSTRACT

The purpose of this study is to measure the effectiveness of the boiler using the Overall Equipment Effectiveness (OEE) method which is based on the factors of availability, performance efficiency and quality rate. As well as finding the causal factors that have a dominant influence on the low OEE value. Based on the calculation results, the average value of the OEE in 2022 Circulating Fluidized Bed High Pressure Boiler unit is 74,61%, when compared to the JPIM (Japan Institute of Plants Maintenance) standard, it is included in the standard company class. Accepted if only in the process of repair. Economic loss, low competitiveness. This is because there is an Overhaul which causes fluctuations in the OEE value which is very far apart. If an analysis is carried out on the OEE value during the 2022 period, the highest is in May, namely 89,94% respectively, when compared to JIPM, it is included in the good company class, in the world class securities category, good competitiveness. If the OEE value can be maintained or increased to maintain the effectiveness of the boiler itself and continue to make improvements to the engine maintenance system. Breakdown Time Losses and Reduced Speed Losses are the Six Big Losses factors that contribute most to the low OEE value of the Circulating Fluidized Bed High Pressure Boiler unit in 2022, namely 25,15% and 24,99% each with factors that influence it, namely human negligence, machine damage due to usage age, high temperature and pressure, feed water quality and coal fuel quality.

Keywords : *Overall Equipment Effectiveness, Six Big Losses, Circulating Fluidized Bed High Pressure Boiler*