

## SUMMARY

# PENGUKURAN KINERJA MESIN BOILER DENGAN MENGGUNAKAN METODE OVERALL EQUIPMENT EFFECTIVENESS DAN FAILURE MODE AND EFFECT ANALYSIS DI PT. XYZ

Created by Hafiz Fahrurrozi

**Subject** : Mesin Boiler, Metode Overall Equipment Effectiveness, Failure Mode, Effect Analysis

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**Keyword** : Production Facility Performance;Paraffin Wax;Boiler Machine;Overall Equipment Effectiveness (OEE);Availability Rate;Performance Rate  
Quality Rate, Failure Mode and Effect Analysis (FMEA)

### Description :

Evaluation of the performance of production facilities is very important for the company. PT. XYZ is a company that manufactures and distributes paraffin wax and its derivatives. The raw material for paraffin wax used by PT. XYZ is slack wax, which is a by-product from the petroleum fractionation production process. PT. XYZ experienced problems with the boiler engine, this machine experienced downtime three times, disrupting the overall production process, and the steam produced did not meet the target. The purpose of this research is to calculate and compare the value of the availability rate, performance rate, quality rate and OEE

of boiler machines with world class standards, determine recommendations for improvements and re-measurements. This research uses the OEE method and corrective actions use the FMEA method. The results of this study obtained an availability rate of 99.88%, a performance rate of 74.69%, a quality rate of 100% with an OEE value of 74.60%. These values when compared with world class standards, the OEE value of PT. XYZ is still under world class standards. Below standard values are caused by low performance rate values. Based on the FMEA analysis, it is known that the highest RPN value is 336 and the lowest value is 270. After the analysis is carried out, corrective actions are produced and 3 corrective

actions have been followed up. Based on this action, it produces a performance rate value of 89.14%, this value has increased compared to the previous performance rate value of 74.69%

**Contributor** : Taufiqur Rachman, ST., MT

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**Contact Person :**

Astrid Chrisafi (mutiaraadinda@yahoo.com)

Thank You,

Astrid ( astrid.chrisafi@esaunggul.ac.id )

Supervisor