OVERALL EQUIPMENT EFFECTIVENESS ANALYSIS ON THE RELIABILITY CENTERED MAINTENANCE IMPLEMENTATION AS A BASIC FOR THE MAINTENANCE DECISION MAKING.
(CASE STUDY : GAS TURBINE GENERATOR in PT. PUPUK KALIMANTAN TIMUR UTILITY K-3)

Name : Devi Novitasari
NRP : 2505 100 040
Departement : Teknik Industri FTI- ITS
Supervisor : Nani Kurniati, ST, MT

Abstrak
PT Pupuk Kaltim is one of the companies movement in petrokimia and became largest fertilizer producers in Indonesia. At present RCM conducted by PT Pupuk Kaltim GTG system has not done well, it seems every year the average GTG failed twice. For this reason, the application of RCM is used as a performance improvement GTG to avoid unplanned breakdown. In this study conducted two reliability analysis is qualitatively in every component and system of the GTG that can cause failure in the system, ie by determining the system function, functional failure, failure modes, failure effects, failure consequence, and maintenance task, and quantitative analysis to determine the reliability function of time, the failure rate and MTBF for a time interval appropriate maintenance.

The result of this study is the failure rate on the critical components of all GTG system in the region has a distribution of wearout and damage to the three parameter weibull shape parameter namely, scale parameter, location parameter. With the implementation of the RCM method at T=24 days, the system reliability value increased by 4% ie from 0,88 to 0,92 value system availability is also increased by 19,2% ie from 66,9% to 86,1% and the value of OEE is also an increase of 19,1% ie from 66,7% to 85,8%.

Keywords: reliability, maintenance, availability, RCM, GTG