INFLUENCE OF CLEANING COMPRESSOR FOR GAS TURBINE PERFORMANCE ON GTG UNIT I
PT. PETROKIMIA GRESIK

Name : BOBY HIMAWAN P. P
NRP : 2107 030 046
Department : D-III TeknikMesin FTI–ITS
Advisor Lecturer : Dr. Ir. Heru Mirmanto, MT

Abstract

PT. Petrokimia Gresik is one of the biggest fertilizer producer in Indonesia and third in the world. Besides it has electrical distribution from PLN, PT. Petrokimia Gresik has another source is Gas Turbine Generator (GTG) and Steam Turbine Generator. The parts of Gas Turbine Generator (GTG) must be preserve other to performance from that machine can work optimally. The parts of power plant is compressor, gas turbine, steam turbine, pump and Heat Recovery Steam Generator (HRSG). Compressor is a part from gas turbine that use to increase air pressure.

This final project is doing performance analysis at open cycle power plant by efficiency analysis gas turbine with natural gas fuel.

From calculation we get compression efficiency before cleaning compressor is 85,60 % and after cleaning compressor is 87,71 % with brayton cycle efficiency before cleaning compressor is 26,76 % and after cleaning compressor is 26,78 %.

Keyword : GTG (Gas Turbine Generator), open cycle, natural gas, efisiensi