

**PROPOSED QUALITY MAINTENANCE SYSTEM FOR DIESEL
POWER PLANTS**

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RATIONALE/INTRODUCTION OF THE STUDY

Diesel Power Plants assume a vital role in the global as well as countries' economy by providing quick response to power generation demand whenever and where ever they are needed. The demand for power, be it, in Marine, or in Stationary Power Plant applications had been constantly increasing through the years. Thus, the need for additional installations, to cope up with the ever - increasing demands for power and electricity continues.

Along with the need for new power plant installations, goes the equally challenging demand for operations and maintenance reliability and efficiency. With the advent of the modern technology and the need for increased productivity, the power plant operators are faced with a much steeper challenge to deliver the power expectations of their customers at the right time, quantity, and quality. Furthermore, the need to operate the plant profitably without compromising safety and the environment had also been a major issue of concern. Thus also is the need for a more reliable and effective operations and maintenance systems.

STATEMENT OF THE PROBLEM

General

At present there are still quite a number of power plants that do not have a quality maintenance system in place. The maintenance program of the equipment in the plant, if there is any, relies mostly on the individual experiences

maintenance becomes an activity only when the need for it arises and worst is that when nothing could be done because it was not expected or no resources was allotted for its resolution.

An effective maintenance system should address the equipment problem before it arises (preventive maintenance) or even anticipate the problem as to when and where it will likely to occur (predictive maintenance). Also, the management is expected to continue to formulate systems and programs at par to the new challenges that the power plant faces as it continues to grow old. Thus, a need for a quality maintenance system comes into consideration.

Specific

Panay Power Corporation is a new diesel power plant commissioned in 1998. The problem is that, the plant has no specific maintenance system in place yet during its first year of operation. As the Planning and Scheduling Engineer, I was tasked to lead and set up the maintenance system for the plant and eventually developed its maintenance program.

OBJECTIVES

The main objective of this study is to come up with a Quality Maintenance System (specifically for Panay Power Corporation) that would serve as a reference for the power plants in developing and customizing their own maintenance system.

This will also serve as a manual for the plant management in formulating policies and strategies in developing effective and efficient maintenance systems and programs. Major foci were made on the following: Maintenance Organization; Organizational Responsibilities and Scope of Duties; Maintenance Management; Maintenance Planning and Scheduling; Policies and Processes, and Support Systems and Policies.

Furthermore, this study aims to encourage the power plant owners, operators, managers, and engineers that a Quality Maintenance System is vital in the total plant operations especially in this times where expectations on reliability, efficiency, environmental protection, and safety of operations are high and of major concern.