

Plant Maintenance

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Introduction

For the proper functioning of a plant, the management is required to perform several functions, including good management of plant maintenance. The production quality and efficiency depend on the machinery, as this may raise the costs of the company if not given ample attention. Plant Maintenance repair department is responsible for requests for maintenance repairs due to failure of machinery or equipment in disrepair. In many cases if a machine is allowed to reach the point of breakdown, there can be extended downtime in terms of production and sometimes costly repairs.

Proceedings of the Plant

The maintenance department works closely with the CEO in implementing the procedures at the plant, such as Process Control Procedures either Control or Termination Procedures, Identification and Tracking either Control or termination, etc. Management should monitor what processes are being implemented consistently in all areas of the plant.

Responsibilities of Plant Maintenance

For the maintenance department to achieve its objectives it must work in collaboration with each department. Each department has its assigned responsibilities, so it will operate most effectively. Maintenance managers must ensure the proper use of maintenance cards. All departments should work together with the methods of engineering to register properly the movement of machinery. They must ensure that all plant equipment maintenance instructions

have been the corresponded to the relevant personnel. Management use standardized formats for maintenance, as well as take care of daily reports of the work of its staff in the form intended for this purpose. Procedure should follow and be applied to programming, and reporting immediately to the maintenance department any changes required.

Maintenance control is like any other function: it is not possible to measure the results or control the operation. Moreover, it can raise the question if you are spending more or less on maintenance than necessary given the results achieved. There are four recognized types of maintenance operations, which are a function of time when they are made, the particular purpose for which they are launched, and according to resources used, as follows (Weiss, 1997):

Corrective Maintenance

This maintenance is also called "reactive maintenance" takes place after a failure or breakdown occurs, i.e. only act when there is an error in the system. In this case if any failure occurs, maintenance is zero, so you will have to wait until the presentation of the damage to take measures to correct errors. This maintenance entails the following consequences:

- Unscheduled stops in the production process, reducing operating hours
- Affects the productive chains, i.e., subsequent production cycles will be standing waiting for the correction of the previous stage.
- Presents or repair and replacement costs not budgeted, so it will be the case that lack of economic resources from being able to buy the parts at the right time
- The time schedule will be out of operation if the system is not predictable.

Preventive Maintenance

This maintenance is also called "planned maintenance" takes place before the occurrence of a failure or breakdown, is carried out under controlled conditions without the existence of an error in the system. It is done because of the experience and expertise of staff in charge, which are responsible for determining the time required to perform this procedure, the manufacturer may also provide for the right time through technical manuals. It consists of the following features:

- Performed at a time that is being produced, so that exploits idle times of the plant
- Carried out following a previously developed program which details the procedure to follow, and activities to be performed, in order to have the necessary tools and spare parts "on hand"
- Has a schedule, and a start time and completion predetermined and approved by the board of the company.
- Destined for a particular area and certain equipment specifically
- It allows the company to have a record of all equipment, also provides the ability to upgrade the information technology equipment.
- It allows having a budget approved by the board (Higgins et al, 2002).

References

Higgins, L. R., Mobley, R. K., & Smith, R. (2002). Maintenance engineering handbook (6th ed.).

New York: McGraw-Hill.

Weiss, W. H. (1997). Plant and maintenance manager's desk book. New York: AMACOM.