

# Maintenance and Facilities Engineering Evaluation: “Do I Need One, and Why?”



In order to answer the above question, an organization must take a step backwards and look at its maintenance program from the outside in. In most circumstances, it is generally quite difficult to garner an objective impression due to ingrained organizational constraints and misconceptions, not to mention the ever-present human defense mechanism of self-preservation.

A properly performed maintenance evaluation should look at the entire maintenance organization, as well as its supporting organizations, from top to bottom, leaving no stone unturned. The need to study inter-departmental relationships, as well as the ability to gather and analyze critical data, is crucial to the success of the evaluation effort.

The collected data is used to determine an organization's performance as compared to accepted norms. Sometimes, this effort can be hampered by the belief that any negative data will provide a negative view of the personnel and/or organization, either in part or in whole. This is when the self-defense mechanism usually kicks in, resulting in data that is inaccurate or, in some cases, “slanted” to provide a skewed, false-positive result. The end result is a maintenance evaluation that is both corrupted and ineffective. This is not to say that a maintenance evaluation only searches out negative information. An objective evaluation process will identify areas in which an organization is performing well, as well as those areas in which there is a visible need for improvement. The result is a qualitative and quantitative look at existing maintenance practices and their overall impact on the organization.

Our experience has shown that an objective evaluation, when performed by an outside third party, is an indispensable first step in developing a proactive, world-class maintenance and engineering support organization.

To determine if an in-depth maintenance evaluation is necessary, serious thought should be given to the following basic questions:

## **“What is the level of emergency work at my facility?”**

In general, a high amount of emergency work is indicative of maintenance practices that have failed or are on the verge of failing. Insufficient preventive maintenance practices, poor planning and scheduling habits, and procedural non-compliance issues are generally the primary causes of emergency work, just to name a few. Best-in-class performers maintain their emergency work level at 5% or less of their overall maintenance workload.

## **“What is the level of ‘wrench time’ within my maintenance organization?”**

Wrench time, or the amount of time that maintenance or technical personnel are ‘on the wrenches’, is a vitally important indicator. Wrench time is not a measure of how busy a technician is, but rather it is a measure of productivity. Wrench time can be impacted by many factors, including the amount of time spent waiting for spare parts, traveling to and from the site for tools or materials, or waiting for equipment to be made available for maintenance. At best-in-class performers, the measure of wrench time is approximately 60% when compared to the typical eight-hour shift. The following chart indicates this value, as well as the values for the national average and the typical industrial finding.

## **“What is the level of overtime at my facility?”**

Overtime is another important indicator with regard to maintenance. Increased levels of overtime are indicative of inherent problems, which, if gone unchecked, will further undermine the maintenance effort. Some of these problems are insufficient wrench time and poor planning and scheduling practices. Typical best-in-class performers maintain a 4% or less overtime level when compared to the amount of overall maintenance man hours.

The above questions are just a sample of the information that is analyzed during a detailed maintenance evaluation exercise. If your answer to any of the above questions exceeds the best-in-class norm in a negative manner, then perhaps your organization could benefit from an in-depth maintenance and facility management evaluation. The key to improvement is first understanding where one is at with regard to established norms. A clear understanding can only be obtained through an objective analysis of existing programs and practices.

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