eGuide

The Top 4 KPIs For Ensuring Maintenance Excellence

ADD ENERGY ACADEMY

Introduction

Data is a critical asset for Maintenance Managers, and is a fundamental requirement for allocating budget, focusing efforts and understanding risk.

Being able to monitor maintenance KPIs ensures you can identify and mitigate potential issues before they become an event, giving you the required visibility to do your job as efficiently and effectively as possible. But amid the firefighting, kicking off new projects, equipment outages, supporting workshops and more, the focus on data manipulation and development of KPIs can appear time consuming and distracting - because you just want to get the job done.

In this guide, our team of maintenance consultants at Add Energy share their tips around what they deem to be the top 4 maintenance KPIs required to help Maintenance Managers unlock efficiencies, boost productivity and reduce risk - to help you shift from a firefighting approach to a proactive maintenance regime.

KPI 1: Emergency work

Reviewing data around emergency work is incredibly important because it could suggest your maintenance strategy isn't working, or that you've got gaps in it. If equipment is failing without pre warning, your predictive or planned maintenance tasks are not working.

On average, it can be 4 to 6 times more expensive for an unplanned repair than a planned repair, so in having full visibility of this KPI and subsequent understanding of the emergency work spend, you will identify opportunities for improvement which could make significant cost savings.

Monitoring this KPI could also allow you to identify emergency work being carried out that isn't true emergency work.

For example, take your main oil line export pump - you've got three of them, and you need one of them to export oil the platform produces. It breaks down, but the other two are fine. What you'll often find is the production team panic because the pump has broken down, and they demand it be fixed immediately because it's a critical piece of equipment. But they forget there are two others - so we don't actually have to fix it right now, due to the criticality it could have been planned in. But people panicked and fixed it instantly, prioritising emergency work that wasn't true emergency work, and bumping the planned work to another day.

A key tip here would be to ensure you have the right prioritisation processes in place to ensure it's true emergency work you are prioritising, otherwise your KPI will be skewed meaning true insights will not be achieved.

KPI 2: Plan attainment

This centres around doing what you say you're going to do, on a weekly, fortnightly and monthly basis. The jobs are being churned out from your CMMS - some may be going into backlog, but the rest should all be executed. But why isn't all of this planned work getting done?

It's important to monitor this KPI because it can allow you to identify a number of issues relating to your current maintenance strategy.

- This could be due to lack of resource
- It could be a lot of break-in work trumping the plan
- It could be ineffective planning processes, as you're unable to identify the right materials and specialists before the work commences
- It could simply be you haven't smoothed your planned maintenance and are suffering from peak activity periods of time.

The KPI will detect if you're not achieving your planned maintenance target hours each week or each month, providing you with a justification to spend time to investigate why. For example, say you plan to complete 900 hours of maintenance each month, on specific maintenance tasks, and you haven't done them, you firstly be able to recognize that this hasn't been achieved and then you need to understand why. Is it because the maintenance team aren't able to liquidate 900 hours in a month? Or have they actually done 1,100 hours, but emergency work has broken into your plan?

This is very useful information to have visibility of, and will help you to develop an accurate maintenance plan that is achievable.

KPI 3: SCE Backlog

This is an extremely important KPI as it's an indication of how well you're managing risk on your asset.

If SCE (safety critical equipment) was to fail, the consequence is the potential to harm more than one person. If your planned maintenance cannot be done on time for this type of equipment, a risk assessment must be carried out and mitigation put in place to make it safe to not do that work, and the planned work can be moved to the next month, perhaps. So it becomes backlog work, instead of overdue work.

Visibility and an understanding of this KPI is so important as the duty holder has an accountability to manage the condition of their safety critical equipment under various legislation and their license to operate can be dependent on this.

KPI 4: Ageing PM's

Ageing PM (planned maintenance) is overdue work, rather than backlog work as discussed above, as it's around non-safety critical equipment, and it can often slip and become overdue.

It's useful to have an overview of this at your fingertips, because it enables you to investigate and understand the reasons why you're not doing planned maintenance tasks. Has corrective maintenance taken over your planned maintenance schedule? Are you not able to liquidate the work effectively?

Because it's ageing, it poses the question if this work needs done at all. If a task has been left for 8 months, for example, and you haven't recognized any failures, you must question if that strategy right for that piece of equipment? Can you decrease the frequency of that task, or should it be done at all?

On the other hand however, if you've got a lot of ageing PMs, and you find you're having failures on the same pieces of equipment, it could be that if you weren't letting those PMs age, these failures could be avoided.

So visibility of data around ageing PMs allows you to identify areas that could be optimized or made more efficient, as well as identify potential issues with regards to resource or the effectiveness of the maintenance strategies.

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