

The People Side Of Improvement **Success Factors for Sustainable Change**

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Maximizing Equipment Productivity – Planning and Coordination are Key

One of the greatest challenges with mobile or fixed plant equipment is following the planned maintenance schedule while maximizing run time. Choosing to go down for planned maintenance when runtime can be “stolen” at any moment by unpredictable interruptions is a responsible choice, but can create a sense of urgency that filters down from the management to the workforce (if not properly managed). If scheduled maintenance is postponed every time there is a production shortfall, prevention activities such as planning and coordination tend not to be emphasized, and the losses associated with a lack of planning and coordination may go unnoticed.

In this article, I am providing some honest feedback about factors that negatively impact equipment productivity and costs. Based on years of experience with analyzing operating and cost data, I believe that low priorities on planning and coordination between shifts and departments are major causes of production shortfalls and high costs. Both planning and coordination are non-negotiable success factors if mining and processing operations are serious about maximizing operational and financial results.

Areas that can benefit from improved planning and coordination include maintenance, operating delays, purchasing, warehousing, supply delivery and communications. When management teams do not emphasize planning and coordination on a daily basis,

- Employees must deal with the problems that result, but recognize that their lives would be better if managers took a different course of action.
- Managers and employees act out of desperation to get production each shift (sometimes resulting in equipment damage.)
- A reactive culture is created, and some production slips through the cracks every shift because a reactive culture is not comfortable dedicating time to problem prevention.
- Production losses caused by poor planning and coordination are not quantified, so their bottom line impact is unknown; however, their annualized impacts could easily exceed the losses associated with a planned rebuild that took a few days longer than expected.

Raising awareness about the impacts of a reactive management style helps managers 1) choose a proactive management style and 2) increase production and reduce costs at little or no cost. Following are some additional observations that raise awareness about this topic:

- “Firefighting” feels like productive work because the clock is ticking when equipment goes down unexpectedly.
- Preventing problems may not feel like productive work, even though planning and coordination increase production and save dollars.
- Low availability and utilization ratios may be accepted as “normal” for some equipment. Poor planning and problems between shifts or departments are a major cause of low availability and utilization.
- When highly productive equipment IS running, it offsets some of the negative impacts of maintenance and operating inefficiencies, hiding the true magnitude of the problem.
- Breaking management’s “desperation cycle” can be difficult. It requires a sustained change in priorities and a recognition that follow-through on planned activities can be worth millions of dollars in additional profit and cost savings. Example:

- For a 2000 tph production rate, an additional 1% of availability achieved through better planning and coordination could increase production by 175,000 tons/year (assuming that all of the availability gain is utilized by operations).
- 1% availability is equivalent to 7 hours/month OR 100 minutes/week OR about 17 minutes per day if running 6 days per week OR 8 minutes per shift for a 2-shift per day operation. What would a 1% improvement in availability be worth annually to your bottom line or capital budget? One thing is certain - the ROI for this improvement would be off the chart since improvements gained through planning and coordination are usually achieved at little or no cost.

In closing, extra production capacity and lower costs are often kept just out of reach by old beliefs, behaviors and cultures. We may blame mining conditions or a lack of equipment replacements and expansions, when planning and coordination are the missing ingredients for improved performance.

Here's the thought for June:

Consistently high production depends on optimizing the balance between run time and downtime AND excellent coordination of planned

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