Reds Meetings Communication Ensures Consistent Reliability

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When condition-based maintenance is a priority, will asset reliability and plant performance significantly improve? The short answer is it depends. While the practice brings to light deteriorating equipment conditions in enough time to make corrections before failure, the extent of business improvement hinges on how well the issues are communicated and acted upon.

Far too often, condition-based work orders become lost in the backlog, even though they represent active equipment deficiencies that pose great risks to performance, safety, and business results. While waiting for attention, conditions may worsen, increasing the likelihood of assets failing in service with potentially catastrophic consequences.

Fortunately, it is not difficult to close the communication gap between condition detection and corrective action. It involves adding brief, strategic meetings to the reliability routine to proactively review and collaborate on priorities. These "Reds Meetings" bring attention to critical conditions ("Reds") to establish accountability and next steps to resolve them. Over time, the practice helps the entire plant to cultivate a strong culture of reliability.

Best Intentions

Reliability programs are often born in a linear fashion: assign the technician, acquire the condition monitoring (CM) device, choose which assets to monitor, collect the CM data, and establish a process to correct the problem with predictive maintenance (PdM).

It doesn't take long to recognize the limitations:

- Having routes for vibration, thermography, ultrasound, and oil analysis with no mechanism for logging and communicating the findings is ineffective.
- Relying on verbal instructions and emails to trigger work order processes is unreliable and inefficient.
- Asset management (EAM/CMMS) software alone is not ideal for differentiating condition-based work from other work or monitoring PdM status through to completion.
- When PdM work orders become lost among a multitude of other work in the backlog, it defeats the purpose by reducing or missing the window of time to prevent failure.

Inability to actively track and talk about open condition cases means not knowing if or when the work was completed. Maybe it never got planned and scheduled, or the technician didn't do the work, or the work was done but not recorded in the software.

Even if the job was properly planned, work order backlogs are fraught with competing interests: operators, engineers, maintenance personnel, reliability leaders, and management all have their own sets of priorities. On top of that, emergencies invariably supersede the best laid plans.

Basic reliability tools and best practices are needed to ensure that every critical condition stands out, is tackled with due urgency, and is tracked to completion.

Solid Reliability Platform
The quick fix is to complement existing EAM/CMMS software with a reliability information management (RIM) solution. RIM software helps to compile all condition data collected from the various CM devices, build cases for active equipment deficiencies, push the cases to the EAM/CMMS and notifications for planning and scheduling, collect feedback from the plant floor on what does and doesn't work, collect closure details from the EAM/CMMS, and provide accurate, centralized reporting of case statuses.

For example, the cloud-based Tango RIM solution from 24/7 Systems promotes consistency in equipment names, fault descriptions, and severity scales across units and companies. Its integrated condition status dashboard and reports show all CM technologies reporting problems for each asset component, displaying the problems in order of severity. Automated notifications communicate the status of each deficiency as it is resolved.

However, RIM software alone is not a cure-all. Without decision makers working together to stay on top of active deficiencies, a considerable percentage of PdM work orders will still linger in the backlog.

The Missing Link
Reds Meetings drive focus on vital work and eliminate the communication gap. With integrated condition status dashboards as the focal point, these weekly or biweekly, face-to-face, mandatory meetings compel individuals who are in control of spending, scheduling, maintenance, reliability, and operations to review each active case, one by one, and assign and document next actions.

Led by a facilitator, the meetings provide a formalized forum to communicate, take action, become accountable, and work as a team with one central goal in mind: manage risk to maximize the profit of the company. Attendees include titles such as production coordinator, supervisor, or superintendent; maintenance planner, engineer, supervisor, or superintendent; and reliability engineer or condition monitoring technician. While Production makes the final decision, the team provides options and supports the decisions.

Participants base their conclusions on which equipment and conditions are most critical to safety, production, the environment, maintenance metrics, and costs – as well as the impact of failure. Standard talking points include:

1. How serious is the problem?
2. What is the status of planning, parts, and special resources?
3. When can repair work fit into the production schedule, or can/should the schedule be changed to make the repair?
4. When can the maintenance budget absorb the cost?

Importantly, Reds Meetings are not problem-solving sessions – that should be completed earlier. Rather, they are designed to be brief and to the point. Keeping in mind that failing to make a decision is actually a decision with tangible consequences, each case must be given full consideration to ensure the decisions are purposeful.

As each condition case is addressed, comments and assignments are entered in the RIM system before attention shifts to the next one. This provides a record responsibilities, for instance: Bob is going to order the parts this week, or Production says the repair can be done the week of March 14 during a scheduled outage, or Maintenance says it'll overrun the budget this month so let's wait until next month.

The meeting length will shorten over time. Initially they can last 60-90 minutes as the attendees get used to the process and begin working through the massive backlog. However, as experience is gained and the backlog shrinks, most meetings can be completed in 30 minutes or less. This modest time investment brings out the full potential of CM: making sure problems are addressed so that failures are avoided and fewer work orders are needed going forward.

Positive Effects on the Plant Culture

Reds Meetings facilitate the culture change required to transition from reactive to condition-based maintenance. Effective reliability systems, processes, and meetings allow proactive resolution of small, emerging problems, rather than letting them develop into causes of equipment failure. The greatest challenge is embedding the new way of thinking, and there are several ways to address that.

- Explain that Reds Meetings are a good habit that, once ingrained in the culture, allow reliability programs to flourish. Role playing using scripts is the best way to establish the proper mindset and expectations of the participants.

- Relay how Reds Meetings foster group accountability, which improves the plant culture as well as business results. Through collaboration, teamwork, and positive peer pressure, participants are inclined to follow through on their commitments to avoid appearing unreliable to the colleagues and superiors.

- Dispel fears of Reds Meetings increasing the workload because they are unfounded. The point of the meeting is simply to optimize work order planning and scheduling. By feeding the normal work processes and moving the anticipated failure date further into the future, it allows more time to take corrective actions and reduces reactive work.

- Set a positive example by embracing the meetings and supporting them through behavior and actions. Announce and celebrate reliability wins to remind management of the business value and avoided costs and strengthen their commitment to the program. Once everyone knows management sees and appreciates the improvements, prompt attention to condition issues will become a way of life.

- Describe how continual feedback increases job knowledge, satisfaction, and motivation. For instance, technicians receive recognition for their skills and value each time they detect deteriorating conditions and understand the criticality and safe time for repair. Because they witness the business side of decision making, they also develop greater understanding of how and why certain actions are chosen.

Beneficial Business Outcomes

Reds Meetings are highly effective. Successful reliability programs have been known to bring “found problems” from 15%-20% of the monitored population to less than 5%, and to yield long-term improvements in the time to close PdM cases.

Measuring performance and documenting progress against metrics drives further improvements. For example, reliability savings benefit the maintenance budget by providing more room for increased CM coverage and complementary solutions. Reliability savings also improve overall equipment effectiveness (OEE) and decrease production losses.

Conclusion

Gathering CM data but not following through on how it is applied will severely curtail reliability initiative effectiveness and ROI. The key to reliability program success is opening a regular line of communication among the primary decision makers to ensure that active equipment deficiencies are not lost in the work order backlog. To foster a culture of reliability and avoid preventable failures, start with a sound foundation of EAM/CMMS and RIM software and regular Reds Meetings.

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