

GREY PAPER

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Leadership Part Three: Integrating Key Performance and Key Predictive Indicators for Risk Control.

Pilko & Associates Grey Paper

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INTRODUCTION

Leadership plays a significant role in controlling risk. Leadership creates the right environment for employees and contractors to do their very best work while encouraging transparency regarding issues and risks that require attention.

Great leaders help organizations see risk differently than in the past, creating better future outcomes. The role of every leader, at all levels and times, is to “Challenge the Green and Support the Red” – encouraging employees and contractors to highlight, prioritize and control real issues and risks.

The very best leaders see their role as developing the next generation of great leaders. Leadership is critical at all levels in the organization to significantly contribute to enterprise and site performance and gaining control of risk.

This Grey Paper is part three of a four-part Leadership series.

KEY PERFORMANCE INDICATORS: HISTORICAL

Leaders today have access to so much information and many feel they need to manage performance by sound bytes or by a dashboard with red and green performance indicators.

Leaders know that key performance indicators (KPIs) are helpful in managing activities and outcomes, keeping indicators in the green. Often, though, leaders can become lulled into false confidence by not regularly questioning and updating observed performance indicators to manage the demands of a changed environment.

Most companies today are adept at managing the “red.” For example, if indicators are red, leaders know to ask what corrective actions are needed or being taken to turn red indicators to green.

But how many companies are good at challenging the “green?” When performance indicators are all green, leadership generally assumes that everything is great, right? Maybe not.

Even if performance indicators are green, strong leaders ask detailed questions about the behaviors behind the green and proactively integrate two different indicators—performance (historical) and predictive (anticipated).

KEY PREDICTIVE INDICATORS: ANTICIPATED

The best approach to managing risk is to balance key performance and key predictive indicators to ensure that the organization is focused on the right issues. Here are some examples:

Personal safety performance. The most often used measures are the OSHA recordable rate for injuries, TRIR and lost workdays (LWI). These reactive measures don’t give leadership a complete understanding of behaviors that lead to outcomes. Other organizations track the number of safety audits or number of safety meetings. These indicators only represent activity and not effectiveness and are not predictors of future performance.

Effective key predictive indicators would be the number of safety interventions that have been conducted or the number of near miss lessons learned that have been shared with the organization.

Process safety. Many organizations track loss of primary containment based on severity – for example, API Tier 1 release, LOPC greater than 1000 kg, LOPC greater than 10 kg. As before, these numbers are reactive indicators.

Key predictive indicators of process safety performance would measure items such as quality rounds conducted by operators; timeliness and quality of piping and pressure relief valve inspections; and inspection and usage of safety critical equipment. This level of detail is important to ensure that the organization understands risk elements and is actively managing and controlling them every day.

BLIND SPOTS AND CONSEQUENCES

Many organizations have blind spots and assume if something hasn't happened at their site, then everything must be fine. This false assumption can lead to disaster.

Not understanding blind spots – and not recognizing that risk is often a combination of multiple barriers not being effective – can lead to false “greens.”

A real-world example of a blind spot contributing directly to a serious incident is a site that allowed open draining of gasoline from large pipelines to assist in pipe maintenance. Contractors at this site had been following this practice for many years without incident. What was not predicted and controlled – a blind spot – was static electricity generation risk as an ignition source for emitted vapors during the draining process. Unfortunately, one day the gasoline vapors were ignited and a large area of the tank farm was involved in a fire.

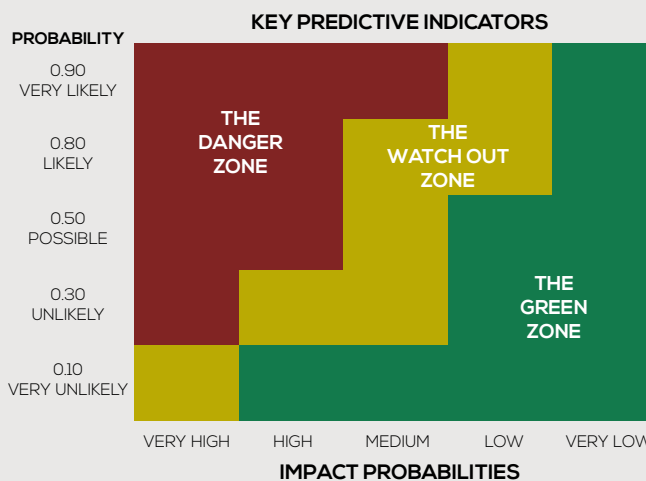
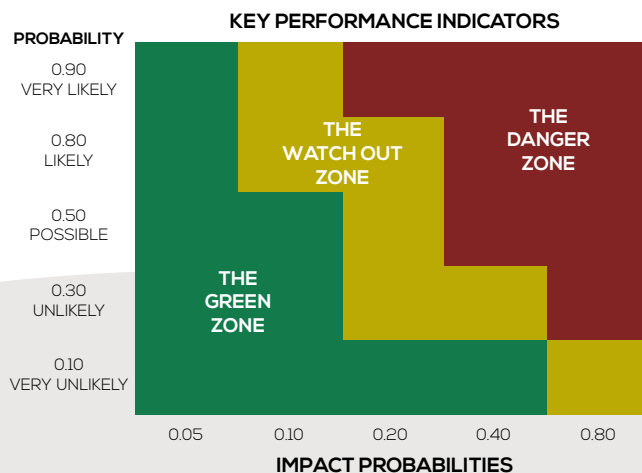
The accepted practice and blind spot posed significant risk that eventually resulted in a large process safety incident and millions in financial loss in product, plant repairs and lost margin.

BLENDING PERFORMANCE AND PREDICTIVE

Great leaders ask staff what it takes to move both performance and predictive indicators from red to green and determine risk mitigation progress (through a developed plan) by using the resources of the organization that are closest to the risk to best understand and mitigate the risk.

It's important to move beyond intuitive risk and mitigation assessment to a more formalized, quantifiable and actionable approach. While much of the work is done with respect to well known key performance indicators, the disciplines around identification, impact measurement and prioritization of key predictive indicators are less common. Examples of key performance indicators and key predictive

Indicator matrices are shown below, perhaps indicative of current state realities:



Best-in-Class leaders cross-connect both KPI matrices to understand and eliminate blind spots thereby moving the organization from reactive response to proactive avoidance, leading to increased risk control.

MOVING FORWARD

Experience tells us that capital spending always has limitations and that companies should avoid overloading operators with too many or redundant maintenance checks. Finding the most effective way to manage the risk and move the indicators from red to green is required, whether quickly or over a multi-year timeframe.

Find small, fix small. For example, a best risk control practice is to train organizations to be vigilant and curious regarding operation and condition of process equipment. Sight, sound and smell are key ways to observe changes in equipment and environment. Operators are very diligent about tracking down a smell that shouldn't be there and finding a small leak rather than normalizing the issue until it becomes a large incident.

Second, when engineers visit units, do they complete walks to observe differences and improvement areas? Encouraging walks and observation lead to predictive correction and increased risk control.

Best Practices indicators are tracking the number of operator identified and corrected issues, no matter how small they may seem. And tracking engineering observations and corrective actions based on walks.

Third, understand that risk control is never "one and done." Unmitigated risks increase over time. Best-in-Class leaders routinely require organizations to periodically reassess, prioritize and mitigate risk ahead of incident, including periodic challenges to risk reviews to ensure conditions and environment changes are considered and addressed.

Fourth, routinely integrate "cold eyes" as a key driver of truth in identification and mitigation of risk. Cold eyes from other areas contribute to assuring risks are identified, properly ranked and managed.

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ABOUT PILKO & ASSOCIATES

Pilko & Associates provides industry-focused advisory services in three core areas – Transactions, Operational Excellence and Governance and Assurance – to enhance value for our clients and their stakeholders in the chemical and energy sectors. We deliver innovative solutions for publicly and privately-held companies, helping them to identify, understand and manage their Operational Risk and Environmental, Health and Safety needs. For more information, visit www.pilko.com.

Lastly, managing change is one of the biggest challenges in managing risk. One of the most prevalent KPIs deals with open MOC action items, indicating process efficiency and resource focus on completing change. But, how do you know if the rate of change is too much, or that the impact of a change has been fully understood?

Too many times, people think that all changes are well implemented and the full benefit is realized. Leaders today must pace change so that their organization undertakes and understands change dependencies that lead to maximized outcome and benefit.

Great leaders are constantly taking another look at how the operation is being managed and the condition of the process equipment. They challenge the green indicators and support the red. You can too.

GETTING STARTED ON BETTER LEADERSHIP

Pilko & Associates has many years of experience in controlling risks in refining and petrochemical operations. They can help you review your key performance and predictive indicators, making sure you have the right balance of past performance and anticipated outcomes that increase risk control of risks. Why not get started today?

Energy and chemical leaders have consistently relied on Pilko & Associates to increase and accelerate achievement of control of Operational/EHS Risk. These leaders have depended upon the experience, skill, proven Best Practices and **8IGHT DRIVERS**® methodology to find, prioritize and eliminate "hard" and "soft" risks within organizations and companies.

