

IDC *Industrial Review*

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FALL | WINTER 2015

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THE CUSTOMER EXPERIENCE... IT'S OUR RESPONSIBILITY



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It seems that sometimes, as business leaders, we are magicians. When IDC-USA was laying out its new distribution center in 1999, we consulted a space planning expert, who made an interesting comment. He stated that the cardinal rule of space planning was, "If you don't have enough space, you will figure out a way to utilize what you have; and if you have too much space, you will figure out a way to use it all."

Many business leaders have reported the same type of phenomenon regarding human resources. Those who have large staffing figure out ways to keep everyone busy; and those with smaller staffing figure out ways to still get everything done. This seems to hold true for large and small companies alike.

For many, 2015 has proven to be a flat or down year. In manufacturing and distribution, it has never been more important to have lean and efficient operations. Fortunately, technology is making this requirement a little easier. Our digital approach to projects, logistics and supply channel management has reduced an enormous amount of inefficiencies.

Likewise, technology and product improvements have provided significant advancements in manufacturing production and MRO needs. These improvements can help manufacturing facilities become lean, mean, fighting machines in their competitive environments. Simply put, faster production at a lower cost puts more money on the bottom line.

Shifting to lean operations is not an easy task. It requires stepping away from the day-to-day and taking a big picture perspective. It requires making difficult, and sometimes unpopular, decisions. It involves setting ego aside and seeking the advice of others. Let

those trusted experts look at what you're doing and ask them if they see ways to improve efficiencies and reduce costs. It's amazing how another set of eyes can often see things that were right before us, but went unnoticed.

Your local IDC Distributor is an expert you can count on for system design and MRO needs. These distributors are independent businessmen that have a passion for helping their customers with new products and innovations designed to improve operations. It is important for you to step out of the day-to-day environment and ask your IDC Distributor to survey your operations, make observations and suggest improvements. If you don't have a relationship with an IDC Distributor, go to www.IDC-USA.com to find the one nearest you.

Even though the "experts" are predicting that 2016 – 2018 will be growth years, this is the perfect time to take operation efficiencies to the next level. Truthfully, it is always the perfect time to make these improvements. In this issue of IDC Industrial Review, you will read a lot about manufacturing efficiencies and lean operations in the industry. We hope the articles will jump-start your thinking to make your own improvements. Our IDC Distributors and IDC Preferred Suppliers stand ready and willing to help you in your quest.



JACK L. BAILEY

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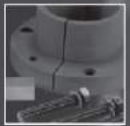
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IDC Family finds creative ways to raise over \$10,000 for charity

IDC Owner-Distributors and Preferred Suppliers are driven by their passion for community and helping others. These values demand they go the extra mile each day with their customers and when there are opportunities to give back. This spirit of giving was present during the IDC Product Forum & Supplier Trade Show, where over \$10,000 was raised!

IDC-USA hosted the 5th annual IDC Charitable Trust Golf Outing, which raised \$9,000. During the outing, participants had the opportunity to donate to a 50/50 raffle that raised \$415. When the winner of the raffle was to be announced during the welcome reception later that evening, attendees voted unanimously

that the entire pot should be donated to the IDC Charitable Trust! The giving did not stop there. Every year Bando USA, an IDC Platinum Preferred Supplier, sells an item during the IDC Trade Show to raise money for the IDC Charitable Trust. This year, the company sold co-logoed Bando/IDC-USA notepads and raised a total of \$640!

Keeping with this spirit of charity, Pooley Inc., an IDC Distributor, donated rubber bracelets to raise money for the Semper Fi Fund and St. Jude Children's Research Hospital. These bracelets were sold throughout the three-day meeting. A total of \$640 was raised (\$330 for the Semper



Fi Fund and \$310 for St. Jude Children's Research Hospital).

"We are very pleased that both IDC Distributors and Suppliers have created ways to raise money for charity. The independent spirit comes with a love of community and need to give back. We are truly blessed to have generous distributors and suppliers who want to have a positive and long term impact on our world," said Jack Bailey, IDC President and CEO.

Catalog for Cleveland Gear "M" Series Speed Reducers

Cleveland Gear has just issued a new enhanced product catalog for its "M Series" modular worm gear speed reducer offering. New additions to the catalog include: 4.25-inch and 5.25-inch C.D. models, all double reduction worm-worm reducers and several types of accessory kits to be used with these drives. The catalog is 40 pages and provides ratings information, dimensional data and engineering resources for 1.33-inch to 5.25-inch C.D. These reducers come in single reduction (5:1 to 100:1) and double reduction (75:1 to 3600:1). Cleveland has extensive inventories and units are ready for immediate shipment from three locations across the United States. Please contact your local IDC Distributor for a copy of catalog #410.



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MA42015M

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MA42026

- m7 1/2" drive 26-piece Stubby Socket Master Set Metric and SAE
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Contact your local IDC Distributor to learn more about these and other King Tony America products.

SPX 9042DG digital pressure gauge

Typical analog gauges are sometimes difficult to read, subject to hydraulic pulsations and unable to record pressure spikes. The 9042DG digital pressure gauge offers accurate and precise pressure readings and records pressure spikes for later reference. This gauge is ideally suited for torque wrench applications using SPX Bolting Systems torque wrenches.

Features & Benefits:

- Backlight and large 0.48 in (12.2 mm) tall numbers for easy reading
- Weatherproof IP67 enclosure
- Protective rubber boot
- Displays in multiple engineering units: psi, bar, mPa, inHg, kg/cm2
- Typical cycle life: 10,000,000 cycles
- Long 2,000-hour life with two standard AA (LR6) batteries
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- Agency compliance/approval: RoHS, CE, ASME B40.7, UL, cUL 61010-1



Contact your local IDC Distributor for more information.

Patton Tool's new style No. 1 chain breakers

These new tools, for 25-60 chain, are a heavier duty design. The jaws, made from 4140 steel, are thicker, making the tools less likely to break and more able to withstand the pressures of heavy press fits. Made in the USA, Patton Tool's same screw assembly and replacement tip will work in both styles of tool; you won't have to purchase a new tool if you just need a replacement part.



LEARNING LEAN

BY CHIP JOHNS, PRESIDENT/COO, BUTLER AUTOMATIC

Increased efficiency lets manufacturers use the same staffing and machinery to produce more end product

In today's competitive environment, manufacturers are continuously looking for ways to drive efficiencies throughout their manufacturing processes. They have increasingly turned to lean manufacturing initiatives, which often focus on implementing efficiency-promoting practices.

Adopting lean practices can improve workflow organization, reduce errors, eliminate waste and even improve employee morale and training. The following tips can help you achieve these goals and change the way your company operates.

Simplify manufacturing processes

Over time, without an eye toward simplification and improvement, every



PHOTO: MINERVA STUDIO

manufacturing process naturally grows inefficient and can lead to wasted time and resources, inconsistent product quality and other negative outcomes. That's why it's important to continually look for ways to simplify manufacturing tasks.

Take, for example, Butler Automatic, the inventor of automatic film splicers. Butler equipment eliminates downtime due to web changes for the packaging industry. Because promoting efficiency is a key part of Butler's business, lean principles are integral to the company's manufacturing practices.

Since Butler builds configured machines – products that are the same conceptually but each tailored to its end use – it implemented a cellular manufacturing practice. Each cell on the manufacturing floor is configured for the different components of the final product and step in the manufacturing process. Individual cells are tailored in terms of materials, tools and design. This approach increases efficiency and reduces waste because all of the appropriate materials and tools (and nothing more) are at workers' fingertips when needed.

Cellular manufacturing also requires that the same process be followed each time a specific part is produced or altered. This reduces possible errors and, through increased repetition, simplifies operator training. Repetition also makes it easier to make slight adjustments and track whether those adjustments

CONTINUED ON PAGE 14

improve overall efficiency. Continuous improvement is a key component of lean manufacturing practices.

Cellular manufacturing provides an excellent example of the positive outcomes that can result from implementing lean practices. But it may not be right for every business. The key is to simplify your company's manufacturing process in search of improvements that lead to repeatable quality and easily traceable results.

Get organized

In addition to simplifying your process, organizing your manufacturing floor and workflow can greatly impact efficiency. Better organization of tools, materials and manufacturing space cuts down on search and transport times, while orderly workspaces help workers feel more relaxed and able to work quickly and efficiently. General cleanliness is important, not just because of its positive impact on worker morale, but also because it helps improve worker safety and final product quality. Cleanliness is easier to maintain if cleaning

supplies are easily visible and readily available. Organization, on the other hand, usually requires a more codified system.

Visual systems are particularly useful when it comes to manufacturing organization. Job boards on the manufacturing floor, for example, convey instructions and customer needs directly to those who need them. These boards may show the status of jobs currently on the manufacturing floor, plus include instructions or other relevant information for managers, operators and other staff. Similarly, job books can include more detail about each individual product and can be made accessible to anyone who needs access to the information.

At Butler Automatic, all of the tools and materials required in a single cell are laid out in that cell, within easy reach of operators. When everything has its own place, and everything in its place has a purpose, waste is drastically reduced.

Reduce errors

Errors are an inevitable part of manufacturing, regardless of the



When everything has its own place, and everything in its place has a purpose, waste is drastically reduced

level of automation, organization and simplicity in the system. Recognizing common sources of errors, and working to improve them, can limit those errors and positively impact your process.

For instance, the number of times a part or product is handled increases the likelihood that an error may occur. Conversely, limiting handling time decreases the chance that an error will occur. Taking steps to limit material handling is one way to reduce errors in your process. For Butler Automatic, reducing material handling took the shape of introducing a vendor-managed inventory (VMI) process.





VMI helps reduce total inventory in the system by essentially extending the vendor's factory or warehouse into your own manufacturing facility. The vendor places inventory directly into manufacturing cells, or other use areas, eliminating the need to receive, handle, count and shift components from receiving, to storage and then to point of use.

In addition, creating standard procedures whenever possible can help reduce errors. Increased repetition means simpler operator training and increased familiarity with the process. Simplified operation and training has the added benefit of making it easier to train your workforce across different parts of the manufacturing process. Cross-trained workers help to increase workforce flexibility and efficiency.

Employee involvement

Cross training workers offers benefits beyond flexible work assignments. Cross training gives

employees a broader look at the entire manufacturing process, and makes it more likely that they will be able to come up with creative solutions for increasing efficiency and continuously improving your process. Continuous improvement works best when employees involved throughout the process feel free to think creatively about the work they are doing, and innovate ways to make that work more efficient with greater quality control.

When employees see their own ideas (or their peers' ideas) implemented, they are more likely to speak up the next time they have a process improvement suggestion. It's important to encourage new ideas and not stifle those who attempt to innovate if their ideas don't end up working.

It's important to remember that not every step in a continuous improvement process will, in fact, improve your process. Some ideas will be tested and may not

work. Don't be afraid to take a step back and start over when something doesn't work the way you imagine it will.

Butler Automatic celebrates innovation by photographically documenting process changes as they occur, and crediting employees who come up with and implement these changes. This lets employees know how far they have come in generating improvements, and increases employee pride and satisfaction. The level of pride that employees take in their work means that they are more likely to continue doing that work to the best of their abilities, and constantly find new ways to do it better.

Benefits of lean manufacturing

Some benefits of lean manufacturing practices include: increased efficiency, higher throughput, more predictable timing of the manufacturing process and, therefore, a greater ability to forecast production schedules and meet product deliveries. Butler Automatic, for example, has had a lean outlook on manufacturing for many years, but took great strides forward in simplifying and improving its process in 2014. As a result, on-time delivery improved from an average of 77% before 2014 to 97% in 2014 alone. For Butler Automatic, on-time production is critical, and lean manufacturing practices have led to huge strides forward in this area.

Efficiency improvements at Butler Automatic have pushed the company to achieve more with the same resources. ☀️

H1/Food Grade Lubricants

The pure, safe, high-tech, sustainable approach to food, beverage and pharmaceutical plant lubrication

BY JIM GIRARD, VP AND CMO, LUBRIPLATE LUBRICANTS CO.

Food grade lubricants have been a part of industrial lubrication since the early 1960s. They were first introduced and used in the United States market. Since their initial development, there have been great high technological advancements with research, development, introduction and use of food grade lubricants.

First, let's review the evolution of the development, approval and monitoring process of food grade lubricants.

The Food and Drug Administration (FDA) of the United States of America produces its Code of Federal Regulations (CFR). Title 21

of the FDA's CFR presents many sections that authorize ingredients which may be used to produce food grade lubricants. The chart on page 18 displays the sections in the FDA's Title 21 and presents brief descriptions of some of the more popular ingredients used by lubricant manufacturers to produce food grade lubricants.

In the early 1960s, the Food Safety and Inspection Service (FSIS) of the the United States Department of Agriculture (USDA) committed to monitoring and authorizing lubricants that could be used to lubricate machinery which had incidental contact with the food. This became known as the USDA/

FSIS "Prior Approval Program for Non-food Compounds and Proprietary Substances." The FSIS published its "White Book," which listed lubricants that had been authorized as USDA H1 (lubricants authorized for use in federally inspected meat and poultry plants for incidental contact with the food product). The FSIS's authorization process and program was based on the FDA's Title 21 list of approved ingredients. This program for authorization of food grade lubricants quickly spread and was recognized by food, beverage and pharmaceutical processors throughout the world.

But, this lubricants industry authorization and monitoring program changed drastically in 1998 when the USDA/FSIS eliminated its "Prior Approval Program" and "White Book" authorization program for non-food compounds. Was the lubricants industry to engage in self-monitoring for H1/food grade lubricants, or would a third-party professional monitoring organization step forward and adopt a food grade lubricants monitoring program?

The National Sanitation Foundation (NSF), based in Ann Arbor, Mich., stepped forward and produced an



PHOTOS: LUBRIPLATE, 06PHOTO, GEMENA COMMUNICATION



for a 100 percent H1/food grade lubrication program.

Lubrication suppliers should be aware of all industry standards affecting H1/food grade lubricants. Food grade lubricants packaging and literature should clearly define the product and relate to all of these industry standards. Consumers must watch for unscrupulous and confusing claims on packaging and in product literature.

Advances in technology

H1/food grade lubricants have not been immune to high technology. In the 1960s there were not many fluid base stocks, additives or grease thickeners available that were listed in the FDA's Title 21 CFR sections. This resulted in poor performance of H1/food grade



industry authorization and monitoring program that closely mirrored the former USDA/FSIS program. The worldwide lubricants industry quickly committed to the NSF's program, and today, the NSF is the leader is authorizing and monitoring H1/food grade lubricants for all lubricants manufacturers. NSF H1 authorized food grade lubricants are posted on the NSF's website.

The International Standard Organization (ISO) also developed the ISO-21469 certification and registration process for lubricants used in specialized industries such as food, pharmaceuticals, cosmetics and animal feed manufacturing. This is a very stringent standard and registration process in which lubricants manufacturers must first be registered and maintain the ISO-9001 Quality Management standard that demonstrates the commitment

to an overall Quality Management System.

Finally, H1/food grade lubricants also are part of Hazard Analysis Critical Control Point Programs (HACCP). In the United States, the FDA and the USDA demand that food and beverage processors develop HACCP programs in which lubricants may be considered as potential chemical hazards. However, if food and beverage processors switch to 100 percent H1/food grade lubrication programs, then lubricants are not considered potential chemical hazards and a HAACP plan is not necessary

lubricants.

However, technological advancements have changed the availability of H1/food grade lubricants. In 2015, H1/food grade lubricants can accommodate every application on machinery in food, beverage and pharmaceutical processing facilities, from refrigeration compressors, to freezer conveyor chains, to gear boxes to filling, seaming and closing equipment.

For example, in the early 1960s, it was impossible to find an H1/food grade grease that delivered


CONTINUED ON PAGE 18



food grade fluid technology now delivers optimum lubrication protection for high heat oven chains in bakeries. POEs have unmatched oxidation stability that virtually eliminates carbon deposits and keeps the chains clean.

Silicones and PTFE are also used very effectively as H1/food grade lubricants.

Synthetic H1/food grade technology also helps to consolidate the amount of lubricants required. For example, synthetic PAOs work effectively in both air compressors and hydraulic systems. It is possible to use the same ISO-46 fluid for both air compressors and hydraulic systems.

All of these technological advancements in H1/food grade lubricants mean that food, beverage and pharmaceutical processors should not hesitate to convert to a 100 percent H1/food grade lubrication program. Converting to a 100 percent H1/food grade program delivers money-saving lubricants consolidation, a reduction in lubricants misapplication, sustainability and helps to ensure a safe product for the ultimate consumer. 

Jim Girard is vice president and chief marketing officer for LUBRIPLATE Lubricants Company, Newark, N.J. and Toledo, Ohio, an ISO 21469 certified lubricants manufacturing company. Visit www.lubriplate.com to learn more.

FDA CODES (CFR) FOR LUBRICANTS WITH INCIDENTAL FOOD CONTACT	
21.CFR 178.3570	Ingredients used to manufacture H1 lubricants must comply with this code. / All Lubriplate H-1 products comply with this code.
21.CFR 178.3620	Technical white mineral oil as a component of non-food articles intended for use in contact with food. / The FMO Series complies.
21.CFR 172.878	USP white mineral oil for direct contact with food. / Lubriplate FMO Series complies with this code.
All of the mineral oil-based products in the LUBRIPLATE H1 range are formulated with USP white mineral oil, which is both the purest and highest quality base oil any manufacturer can use to formulate H1 lubricants.	
21.CFR 172.882	Synthetic isoparaffinic hydrocarbons, i.e., PAO base stocks / Lubriplate SFGO Ultra Series, SFL Series and the SYNXTREME FG Series.
21.CFR 182 with 9 subheadings	Substances generally recognized as safe, e.g., zinc oxide and tocopherols (Vitamin E.)

both anti-wear and extreme pressure protection. Today, calcium sulphonate-thickened greases made with USP white mineral oils and synthetic polyalphaolefin (PAO) base stocks are truly anti-wear and extreme pressure lubricants.

Lubricant manufacturers have been able to add anti-microbial additive to their products. Anti-microbial additives help to prevent the decomposition of lubricants caused by microorganisms. Many anti-microbial additives are

registered with the EPA.

The use of synthetic polyalkylene glycol (PAG) base stocks to manufacture H1/food grade gear oils has produced H1/food grade gears oils which deliver extended drain intervals and unmatched anti-wear and extreme pressure protection. Gear reducer original equipment manufacturers (OEMs) now have no fear in recommending H1/food grade synthetic PAG-based gear oils.

Synthetic polyolester (POE)

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To learn more about how doing business with an IDC Distributor can benefit you, contact your local IDC Distributor today.



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What's the FRACAS?

A Structured System to Support Continuous Improvement

BY BILL KEETER

A disciplined and aggressive closed loop Failure Reporting, Analysis, and Corrective Action System (FRACAS) is an essential element in achieving continuous improvement in reliability and maintainability of production systems. The goal of a good FRACAS is to report and analyze failures so that corrective actions can be implemented and verified.

Determine your definition of failure

An important first step in developing an effective FRACAS is to understand what constitutes a failure. The Nowlan and Heap team that developed the Reliability-Centered Maintenance (RCM) process developed an excellent working definition of a failure.

“...a failure is any identifiable deviation from the original condition which is unsatisfactory to a particular user.”

This definition leads to the conclusion that the organization must determine for itself what level of deviation from desired

performance is unacceptable. For some organizations, a total stoppage of the process may be the unacceptable deviation. For others, even slight deviations in quality or quantity of output are unacceptable. The organization's definition of failure needs to be documented, and members of the team need to be trained to recognize and report failures in a timely fashion.

Thoroughly report the failure

It is not enough to report that a failure occurred. There are several important bits of information that should be recorded.

■ What was the deviation from desired performance?

- Total stoppage
- Reduced quantity of output
- Off quality production

■ How great was the deviation?

- Hours of stoppage
- Lost production quantity
- Amount of off quality material produced

■ What was the financial impact of the failure?

■ If the deviation was caused by a part failure

- ID of the failed part
- Description of what was wrong with the part
- Which non-failed parts were replaced in addition to the failed part

■ What were the date and time of the failure?

■ What personnel were involved when the deviation occurred?

- Operations
- Maintenance
- Engineering Support





- What thing(s) have the deviation?
- Where on the thing(s) does the deviation occur?
- What is the extent of the deviation?
- What is the cost of the deviation?
- What are the health, safety and environmental impact of the problem?

2. Develop potential causes – list the potential causes of the problem and eliminate any that are not supported by evidence.

3. Develop recommended actions – list corrective actions that might be applied to prevent recurrence of the failure.

Developing recommended actions

The outcome of any failure analysis should be a recommended action or actions that has/have been evaluated against a predetermined set of criteria to ensure that the needs of the business are best met. In most cases, a minimum set of criteria must be met. Any corrective action that cannot meet the minimum set of criteria must be eliminated from consideration. There will also be a set of desired criteria that should be met. Each of those criteria should be weighted to reflect how much the organization desires them as an outcome. It is extremely important to develop evaluation criteria prior to developing corrective actions to help prevent picking criteria that match a favorite action or actions.

CONTINUED ON PAGE 22

Analyze the failure

Failure analysis consists of using whatever means are necessary to determine the cause of the deviation from desired performance. Much of what is done will be determined by the evidence available at the time of the failure. Failed parts are often so badly damaged that a simple visual inspection may not provide enough information to develop the cause of the failure. Off quality material may require extensive examination to determine the cause.

A wide variety of failure analysis and problem solving methods are available. Potential causes must be supported by evidence regardless of the method used. Here is a basic set of steps to follow that are independent of the method used.

1. Define the problem – clearly state what the problem is in easy to understand terms that everyone involved can agree to.

- What is the deviation from normal?

Convert recommended actions to corrective actions

A corrective action is a change to processes, equipment, materials or procedures that has been documented, implemented and verified effective. There must be a plan to document recommended actions, ensure that they are implemented, and verify that they have been effective at preventing recurrence of the failures. The plan should include assigning responsibility for implementation, a deadline, and criteria for verification of effectiveness.

Implementing an effective FRACAS

Implementing a FRACAS is just like implementing any other

system that an organization might install. The system must have all the elements because it needs to sustain itself. Here are seven steps your organization can take to help ensure a successful implementation.

- 1. Begin with the end in mind.** Make sure you understand the benefits you expect to receive from the FRACAS. The expected benefits will drive when and how much data you collect.
- 2. Create a data collection plan.** Build a plan for the type of data to collect, and what tools (EAM/CMMS, FRACAS database, paper forms, etc.) to use to collect it.
- 3. Create a responsibility assignment matrix (RAS/CI).**



These seven steps will lead to greater success

Decide which FRACAS activities individuals will be responsible or accountable for, which individuals will be consulted about certain activities, and which individual will be informed about activities.

4. Write policies and procedures. Put together policies and procedures governing all aspects of the FRACAS from creation of failure

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codes to implementation of corrective actions.

5. Develop and execute a training plan. Develop a plan for who will be trained, what they will be trained on, and when they will receive training. Make sure to cover training of new hires.

6. Implement the FRACAS. Hold informational meetings and set the FRACAS elements in motion.

7. Monitor and adjust the program. Develop key performance indicators (KPIs) that measure whether or not FRACAS elements are taking place, and whether or not the FRACAS is being effective at achieving the desired results. Share results with other members of the organization.

Conclusion

A well designed and implemented Failure Recording, Analysis, and Corrective Action System can be an effective continuous improvement system for any organization. Following the seven basic steps for creating and implementing the FRACAS will help ensure that failures are recorded and analyzed to develop corrective actions that fully meet the organization’s needs for profit, safety, health and environmental performance. 🌐

Bill Keeter is the owner of BK Reliability, which has provided consulting and training for reliability improvement efforts in petroleum, petro-chem, mining and heavy manufacturing for more than 15 years. During that time, he has

used analytical methods such as Reliability-Centered Maintenance (RCM), Root Cause Analysis (RCA), Reliability, Availability, Maintainability and Safety Modeling (RAMS), and Life-Cycle Cost Analysis (LCCA) to help organizations analyze failures, develop equipment

maintenance plans and improve system performance. Bill is the co-author of the book “Fracas; Failure Reporting, Analysis, and Corrective Action Systems.” Reach him at (321) 202-1717 or bill@billkeeter.com.



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ARE YOU A CHANGE CHAMPION?

BY DAVE BERUBE, LIFE CYCLE ENGINEERING

The company has embarked on a new change initiative. It could be Lean Manufacturing, Safety Excellence, Operational Excellence or improving Asset Management. Having a great initiative that you want to implement is only part of the equation. We must get our initiative accepted as well as implemented. Like most major change initiatives, a champion has been assigned. This time it is you. Do you have what it takes to be a “Champion of Change”? What does it take to be a champion and how can we best set up our champion for success? Champions of change must be:

Available and Visible

When leading change, it is important to actually be there. You can't lead from your office. You have to be visible

and lead from the front lines of the change. You must have the time to build coalitions, communicate to employees, and attend project status and team meetings. You must take the time to understand project milestones and timelines. You have to be there during all phases of the project. You need to communicate results, look for resistance, and ensure that the change is being reinforced. It is very difficult to be a part-time champion. You must have the bandwidth to be an effective champion of change.

Passionate and Persevering

Passion and perseverance are essential. As the champion you must truly believe in the initiative at hand. Your passion and enthusiasm will be infectious and will create a positive influence. Without passion, there may not

be sufficient energy to propel the change initiative. You must also be persistent. You can't be a quitter. While implementing major change there are sure to be bumps and obstacles in the road. How do you handle bumps and obstacles? Do you fold under the pressure or do you improvise, overcome or adapt? However, even great passion and perseverance will have a diminished effect if you lack credibility.

Credible

Do you consider yourself an expert? Are you considered to be an expert by others? The two questions are not the same. Remember that credibility is in the eye of the beholder. It is not about what you think about yourself. It is about what others think about you. When you are a new employee walking in the door, you are given some level

of credibility based on your education, background and experience. That is your starting point. What you do next on a day to day basis will either boost or diminish your credibility amongst your superiors, subordinates and peers. Building credibility takes time, often several years and it never ends. There is always the need and constant opportunities to create relationships and build trust.

Coalition Builder

When implementing change, it is often said that “having the right answer is not enough.” Even if you are the most credible person on the planet, there are times that your individual credibility is insufficient to get everyone to buy in on the change initiative. We must gather support of other well-respected, credible individuals. In effect, you must be able to create a team of champions at all levels of the organization to support the change. Do you have enough horsepower to influence senior leaders? Can you work with the executive sponsor? Senior leader support carries greater weight and, in the end, for any major change to be successfully implemented, it will require their active and visible sponsorship. Having members of your coalition with high seniority is critical to your success.

Team Player and Trust Builder

Are you known as a team player or are you only a team player when it fits with your priorities? It is important that this change not be about you. It must be about benefiting the entire team. When

communicating success, be sure to praise others and never pat yourself on the back. This is a critical element in building trust. Building trust is not easy because this again is not just about you. What is the current level of transparency and trust in the organization? Is the environment built upon partnerships or silos? Have previous changes failed? Do people feel safe or is every day a battle for survival? Success in implementing new initiatives is directly affected by the level of mutual trust and teamwork that exists. The greater the risk that an idea introduces to individuals and the organization, the greater the level of trust that is required.

Master of the People Side of Change

To be an effective change champion, it's important to know that solid project management is not enough. You must understand the “people side of change.” You need to be aware of how people will react when changes occur and recognize that resistance to change is normal. You should be familiar with change management methodologies and how they are implemented.

Vision Alignment

Alignment is a key factor for success. In order for someone to positively respond to your new initiative, they must see how it fits within the company's goals. If their individual goals are also connected to the company's goals we then have further alignment. It is extremely important that we are both trying to get to the same place. Be sure to frame the change

initiative as a “we” initiative. “What are our specific business challenges?” “What are the risks of not changing?” “How can we improve?” “How can we achieve our corporate goals?” “Why must we do it now?”

Change Management Methodology

The leading researcher of best practices in change management, Prosci, finds that projects with excellent change management effectiveness are six times more likely to meet or exceed project objectives. Prosci's research also found that there is a direct correlation between project effectiveness and staying on schedule and within budget. Effective change management means applying a structured process to analyze change risks, creating a change strategy, communicating effectively, adequately training people, and supporting sponsors and managers in leading the change.

Communication Effectiveness

Our ideas cannot be forced upon others. We need to communicate, communicate and communicate. To communicate effectively we must speak the language of our audience. Do not use technical words that your audience will not understand. Stick to the facts. Provide very concrete examples and avoid the theoretical and abstract. Answer the questions in their mind. What are we trying to change and where? Why are we trying to change it? Is there really a sense of urgency to do it right now? Who needs to change? How will we be able to make the change?

CONTINUED ON PAGE 26

A comprehensive communication plan is essential for effective communication. You need to identify the audience, the key messages, match the sender to the audience, ensure proper timing and communicate

often. It has been proven that face-to-face communication is the most effective, so encourage leaders and managers to get out of their offices, have one-on-one discussions and even meet informally with employees.

Results Matter

Your organization embarked on a change initiative for a reason. In the end it must produce results. Since money talks, the organization must build a solid business case for why the change is needed. The benefits must also be tied to achieving the company's vision. When there is a business case, we expect to see measureable results on the back end. Achieving desired performance and results are some of the best ways to reinforce a change.

For very large changes, results can be lagging. Where possible, you must find some quick wins. One of the best ways to prove concepts is conducting them within a controllable, pilot area if at all possible. Document and track both the tangible and non-tangible benefits. Document and track the measurable results. Be sure that the results are publicized and communicated!

Sustainability

As new behaviors are established, they must be reinforced. Reinforcement can be accomplished in several ways. One way is to talk about it. Ask employees for feedback on change effectiveness and incorporate their suggestions. Observe the new behaviors in action as well as observing if the old behaviors are still occurring. Conduct formal audits and analyze the usage of new systems and tools. Collect all your findings, create and execute corrective action plans.

An often missed form of reinforcement is celebration.

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Celebrate not only the end result but also the baby steps and milestones. You must also ensure that the changes from the initiative are anchored in the future state so that it does not become another “flavor of the month.” This can be accomplished by adjusting systems such as the performance management system or modifying organizational structures.

Summary

Becoming a champion of change—achieving buy-in and managing complex change—is truly not a one-time event. It is an ongoing, competency-building process. It requires the involvement of not only champions but also change management professionals, senior leaders, managers and employees. It requires teamwork, building coalitions and partnerships. It requires effective communication. The big difference between companies that successfully implement key initiatives and those that don’t lies not in the long list of great ideas and initiatives, but in the ability to effectively manage change.

Champions of change are a critical component to effectively managing change. They must be team players, be available, visible and credible. They require the ability to build coalitions and trust within the organization. Champions of change need to understand the people side of change. So, now that you know, do you have what it takes to be a champion of change? ☺

Dave Berube, a principal consultant for Life Cycle Engineering (LCE) and a retired U.S. Navy Chief Petty Officer, has more than 30 years of experience in leadership and management within the operations, reliability and maintenance realm. His expertise

includes change management, project development and management, training and business process re-engineering. You can reach him at dberube@LCE.com.



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Manufacturing optimism

Survey of mid-sized manufacturers shows good news about hiring, revenue growth

BY RICH VURVA

In a good sign for the manufacturing economy, a recent survey shows that mid-sized manufacturers are expressing optimism about revenue growth and employment levels.

Prime Advantage, a buying consortium for mid-sized manufacturers, announced the findings of its 14th edition of the Purchasing and Manufacturing Survey of more than 750 U.S. manufacturing companies. The results show continued optimism about revenues and employment as well as increasing demand for flexibility and responsiveness in supply chains. Confidence in growing revenues extends into 2016, according to the study.

Summary of findings

Eighty percent of respondents expect to be at or above previous year's revenues, and 83 percent anticipate maintaining or increasing revenue performance in 2016.

Eighty-four percent of the buying group's members are prioritizing indirect spend to control costs.

Hiring is strong, as 61 percent of members planned to hire new employees in 2015.

A lack of qualified workers remains the top threat to manufacturing growth among members for the second consecutive year, with 46 percent

voicing this concern, down from 53 percent in 2014.

The three most desired traits for potential procurement hires are: analytical skills, negotiation expertise and a strong acumen for relationship management.

Revenues look to remain strong for the rest of 2015

After several consecutive years of climbing revenues, some manufacturing companies are starting to temper expectations. Eighty percent of respondents expect to be at or above the previous year's revenues. Although this remains a significant portion, it is the lowest percentage

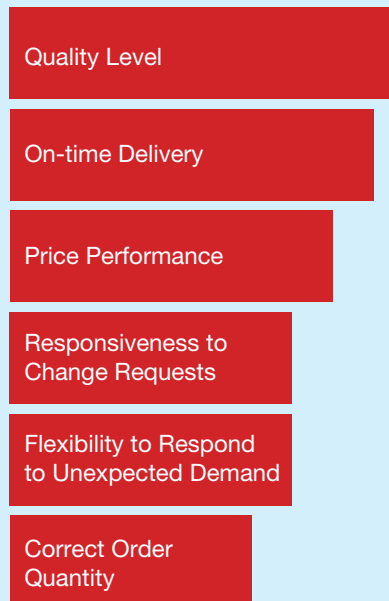
Lack of qualified workers is top threat to manufacturing growth

of optimists in this category since 2010. With demand decreasing for some members, 27 percent reported that they are currently performing below forecast for 2015. This slowdown may be temporary, as 83 percent of members expect to either maintain or increase revenue performance in 2016. Respondents currently enjoying revenue upswings largely credit new product lines and new customers for the growth.

Capital expenditures holding steady

Manufacturers remain optimistic about investment in

Supplier Performance Measure



their operations, as 87 percent of respondents are either meeting or exceeding capital expenditure plans for 2015, with 73 percent expecting current trends to continue throughout the remainder of the year.

Cost pressures threaten bottom line

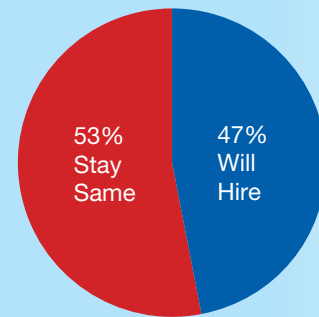
Once again, raw materials top the list of leading cost pressures for procurement professionals. Indirect materials and supplies, as well as component parts pricing, have also been significant margin-threatening factors for manufacturers this year.

Employment outlook is promising

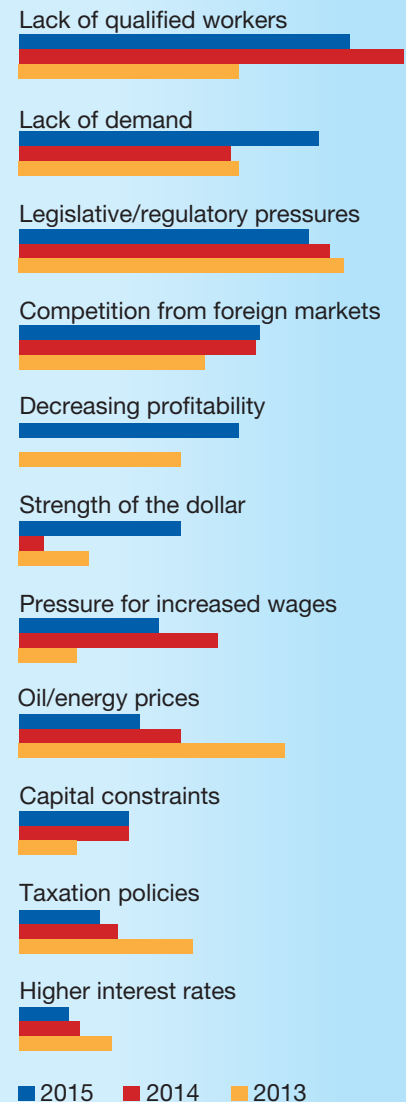
Manufacturers continue to hire, as 61 percent of members went into 2015 planning to add new employees; with 79 percent of those having already fulfilled this mission. This positive trend looks to continue for the remainder of the year, as no respondents are expecting layoffs and 47 percent expect to bring on additional employees. This result is consistent with the PwC Manufacturing Barometer's findings.

“The survey results are extremely encouraging. The majority of our members continue to achieve strong revenues and growth, even after concluding a string of very prosperous years,” said Louise O’Sullivan, founder, president and CEO of Prime Advantage. “Our members are developing new products to increase demand like never before and the power of our group intensifies every single year.”

Employment Outlook 2015



Barriers to Business Growth



Telco Sensors: Your photo-eye problem solvers



High-quality photo sensors see through tough applications to deliver reliability and plant uptime

BY CLAIR DAVID URBAIN

“We are considered in the industry as the photo-eye problem solvers,” says Richard Livengood, Telco Sensors’ president of North America.

Based in Denmark, Telco Sensors is the leading designer, developer and manufacturer of ultra-reliable, extremely accurate photoelectric sensors, photoelectric amplifiers, light

curtains and optical fork sensors in the world. Its products can withstand the effects of the most challenging applications, Livengood says.

“You will find our sensors in applications that have high dust, such as paper plants; high vibration and shock loads, such as lumber mills; high-pressure steam and water for cleaning such as poultry processing facilities; and even your local car

wash,” says Livengood, “Telco has a reputation of being the company with photo eyes on steroids.”

“Seeing” the difference

Livengood says Telco Sensors was established in 1975, building photo eyes that are built quite different from price-sensitive models available.

“Our sensors are built with a high-quality sensor that is set



Telco sensor applications

- Photoelectric sensors: through-beam, diffuse proximity, polarized retro reflective, background suppression
- Fiber sensors
- Light curtains
- Optical fork sensors
- Remote photoelectric systems: remote sensors, photoelectric amplifiers, multiplexed amplifiers, photoelectric bus amplifiers
- Power supply units
- Optical frame sensors
- Industrial light curtains
- Measuring light curtains
- Accessories: apertures, cables, glass-fiber optics, mounting brackets, reflectors, sockets and connectors

in a clear epoxy. Other sensors use a lens to protect the sensor, which can be compared to to 'granny's glasses' and are susceptible to dust, vibration and moisture. With the sensor set in an epoxy resin, the sensor is able to 'see' through contaminants that cloud the sightline of other sensors," he says. All sensors are built in its Denmark plant to very high specifications and go through a triple quality check process before shipping, resulting in a 99.999 percent reliability rate. It results in a long product life. "We are just now

getting replacement orders for some sensors installed in the early '90s.

"We help customers solve problems, and we do that by looking at the production process and its challenges. Any sensor can count, but if the conditions are less than optimal, low-cost sensors will quickly require cleaning, babysitting or replacement."

Production facilities are adamant in keeping their processing equipment secrets

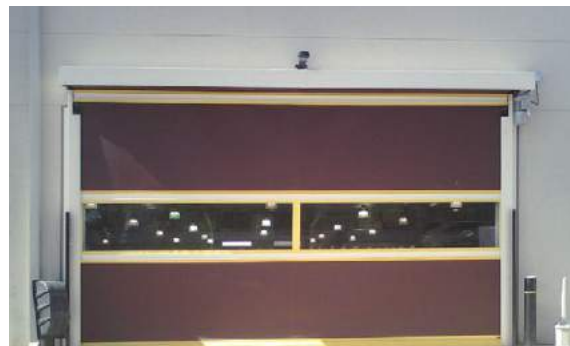
to themselves, but Livengood says the North American team of Telco's technical professionals, who are available through IDC Distributors, can build on that experience to help a wide variety of companies address sensor issues. Here are a few examples of solutions that have dramatically reduced or eliminated downtime to sensor malfunction:

■ A toilet paper production plant suffered unneeded downtime because a sensor at the top of the production line was getting clouded by paper dust, shutting down the line. The only solution the plant management found was to put a maintenance worker in a man-lift every two hours to blow the dust off of the sensor. When the sensor was replaced with a Telco sensor, the need to clean off the sensor was nearly eliminated, which reduced downtime and saved the facility \$60,000 in less than six months.

■ A lumber processing plant had trouble with sensors that couldn't take the shock and vibration of equipment handling 5,000 lb. logs moving through the facility. Telco sensors, which are set in an epoxy resin, aren't affected by shock, so they won't come apart from repeated shocks or vibrations. The result was that downtime was eliminated from photo eye malfunctions.

■ A facility that uses high-speed industrial doors between production and warehouse areas suffered repeated door damage when low-cost sensors

CONTINUED ON PAGE 32



No problem is too difficult for Telco Sensors to solve. Telco Sensors are designed to perform in even the most demanding environments.

malfunctioned and doors didn't open in time. With Telco's infrared light curtain solution, door damage was eliminated.

■ A people-mover manufacturer was able to produce a green energy-rated escalator because Telco sensors accurately identified approaching pedestrians, running the escalator only when people needed it. The intermittent operating design also dramatically reduced maintenance costs.

■ A poultry processing plant had continual problems as high-pressure steam cleaning knocked out low-cost photo eyes critical in the production process. New Telco sensors, set in epoxy, easily withstood the effects of the high-pressure steam cleaning and greatly reduced maintenance costs and downtime in the plant.

Industries served by Telco sensors:

- Food and beverage
- Lumber
- Industrial doors and gates
- Public transportation
- Carwash
- Packaging
- Material handling
- Access controls
- Agriculture and farming machines
- Paper and pulp
- Hostile industry
- Steel-metal forming
- Elevators and escalators

■ A bakery was having issues with sensors losing alignment and shutting down baking lines. The sensors required realignment three times each shift, slowing production and affecting product quality. Once Telco sensors were installed, the company soon replaced sensors in its other plants to improve their uptime.

“No one calls us with the easy applications,” says Livengood. “We get the calls from facilities with sensor problems that are causing thousands of dollars of downtime. Our sensors are more expensive, but in the scheme of things, the sensor cost isn’t a factor, reducing or eliminating downtime is the driving factor,” he says.

“The reputation of Telco sensor reliability that starts on the manufacturing floor works its way up the OEM supply chain,” says Livengood. “The excellent experience manufacturers have had with Telco sensors for replacement gets communicated back to OEMs as they get orders for new equipment. Telco sensors are often specified by the buyer in new equipment purchases,” he says. “We often come in the back door at OEMs

with customer requirements or recommendations.”

Tremendous potential

Customers and distributors of power transmission equipment are often less comfortable around electrical components, so they are less likely to tackle the headaches they can cause. Instead, the problems are addressed with labor-intensive solutions.

“Sensors are really simple, they are just a transmitter and a receiver, doing an on-or-off process check. They are much simpler than programmable drives, for example. The key is that Telco Sensor experts across the country are available to address sensor issues. We have proven that we can solve problems that others can’t,” he says. “Our technical experts will work alongside IDC Distributors, showing customers how Telco sensors are different and better than what they are using. When we show them the difference our sensors can make, they can’t wait to get them installed on their equipment,” he says. ☉

Go to www.telcosensors.com to learn more or contact your local IDC Distributor.



MAKING SENSE OF TECHNOLOGY

Telco's five core values

Rugged sensors for challenging applications

These five values set Telco sensors apart from the others:

EASY ALIGNMENT

Installing a Telco sensor is as easy as child's play.

Our sensors are easy to align and require no complicated set-ups that guarantee effortless installation every time.

PENETRATION POWER

Severe contamination is no challenge for Telco sensors.

Our infrared sensors penetrate through any contamination thrown at them and will operate relentlessly even in the most hostile environments.

IMMUNITY TO LIGHT

No light will blind a Telco sensor.

Our sensors do not need to be covered or hidden from ambient or extraneous light to function problem-free.

SHOCK AND VIBRATION

Nothing endures maltreatment like a Telco sensor.

Our sensors can tolerate severe vibrations and physical impact without hindering lifetime or performance.

WATER RESISTANCE

Telco sensors like it wet.

Our sensors are designed to withstand direct exposure to water and high-pressure spray and are capable of operating reliably in wet conditions.



Improving safety at the Soo Locks

A custom-designed solution improves operator safety at hydraulic power plant

Machine Guard & Cover Co. specializes in both stock machine guards and bearing covers, as well as in-house tooling and manufacturing of custom parts.

THE CHALLENGE:

Low head hydraulic power plants have turbines set at or

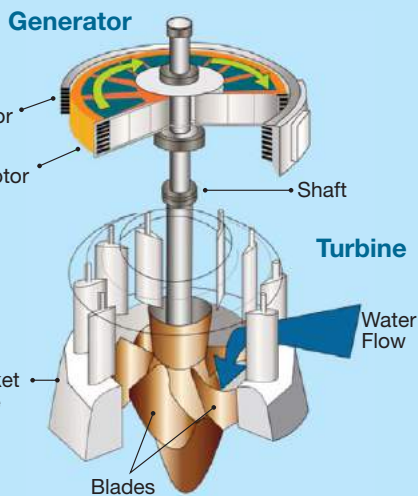
close to the discharge level of the water, with a generator placed above the turbine. (See Figure 1).

These two large pieces of equipment are made by different manufacturers, and they are connected by an exposed, rotating shaft. Operators must stand on top of the turbine for inspection and maintenance. Some of the inspection must be done while the unit is operating, placing the operators in close proximity to the shaft. Machine Guard & Cover Co. was asked to design guards for four turbine and generator shafts at the Soo Locks in Sault Sainte Marie, Mich.

it would interfere with the necessary maintenance of the unit.

The Soo Locks safety manager asked the operators of the plant what they wanted in a guard. Their requirements were clear:

- 1) They did not want a bulky structure that would make working in the confined area on top of the turbine even more awkward.
- 2) They did not want loose fasteners that could slip free and get lost in the turbine.
- 3) The guard would need to be manufactured from a material that could withstand a catastrophic electric or fire event—so that the smoke from the guard would not damage the electrical equipment in the building.
- 4) The guard would need to be easy to install and remove.



Courtesy of U.S. Army Corps of Engineers

FIGURE 1

THE BACKGROUND/ REQUIREMENTS:

The turbines are located in moderate sized pits, with little extra room for movement of the operator. Access ports on top of the turbine, close to the shaft, meant that any guarding solution could not be too large or

OPTIONS:

Given the list of requirements from the staff, options were limited.

A safety lock, preventing users from performing maintenance while the unit was running, was not an option, as the generators cannot shut down without scheduled downtime.

Completely enclosing the shaft with a fabricated box was discussed. A metal box would be much too unwieldy and heavy for this application. A plastic box would be lighter weight, but still too big for the space requirements given.

The final option was to design and build a custom-fitted shaft cover, with ribs for stability and captured hardware for mounting. Although this option was the most expensive, it was the best option given the requirements.

SOLUTION:

Machine Guard received prints from when the units were installed, dated mid-1940s. Although the prints gave a good starting point, Machine Guard still had to construct solid models of the units, double checking models against the actual units.

The first requirement was that the guard be close-fitting to the shaft, in order to keep as much space in the pit as possible for the operator. By choosing to have a custom-tooled shaft cover, this guard was drawn to the specifications.

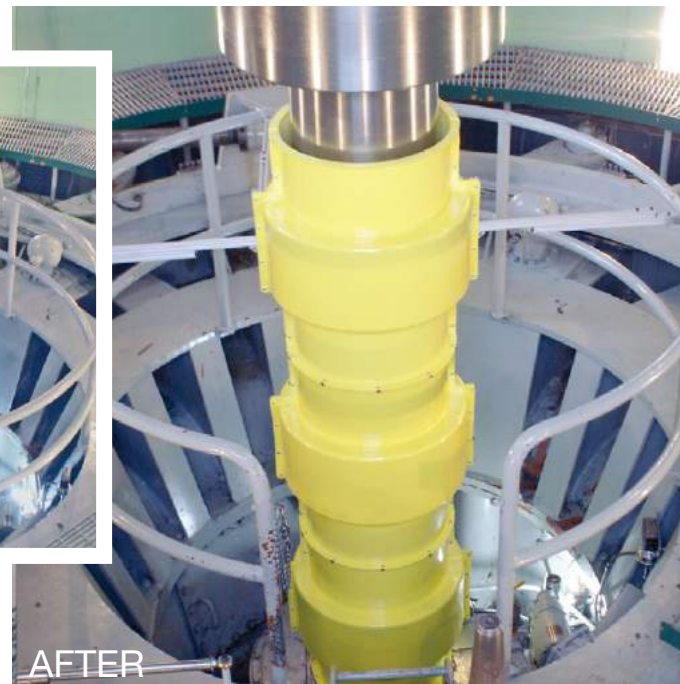


The main plastic guard sections were pre-assembled using Machine Guard's safety captured fastener system—to ensure that the fasteners would stay with the guards and prevent accidental loss. These fasteners met requirement No. 2.

This modular guard was made from Kydex T, a thermoformable plastic with a rating of UL Std. 94 V-0, 5V. This met requirement No. 3, the ability to withstand a fire or electrical catastrophic event. When fully assembled, the guard would be over 18 inches wide and eight feet tall. By making the guard in identical sections, the cost for tooling stayed low, as only one mold was necessary.

To meet the fourth requirement, each half of the guard, although eight feet tall, weighed less than 20 pounds. This made the halves easy to transport, and easy for one person to install around the shaft.

Machine Guard worked with the staff at the power plant to



devise a way of fastening the guards to the top of the turbines. The power plant operator did not want to drill and tap into the structure of the turbines, because if a problem occurred, it would be extremely expensive to correct. Instead, the guards were fastened to the turbines with weld nuts that could not compromise the structural integrity of the turbines.

The guard had to be stabilized toward the top of the unit as well as securely fastened on the bottom. Machine Guard used commercially available extruded aluminum for the braces.

RESULTS:

Machine Guard was able to meet all the requirements listed by the U.S. Army Corps of Engineers, as well as stay on budget. The customer was so pleased with the shaft guard, that they have returned to Machine Guard for further projects. 🌐

Strive for perfection

10 steps to establish best practices in maintenance management



BY JEFFREY OWENS

Establishing best practices in production maintenance is an achievable goal. But it's a goal that many talk about but few achieve. So why is it so difficult? And, why are so many manufacturers still running at over 90 percent reactive?

Many blame it on the age of their manufacturing assets and the repairs they require. More blame goes to not stocking the critical (and expensive) spares needed to sustain production. And still more can be blamed on today's fast-paced manufacturing that doesn't allow for proper planning or time management.

Rather than play the "blame" game, what steps can be taken to proactively reach world-class maintenance in this reactive environment? Here is what I would propose:

1 The first step of any journey to best practices is to gather as much data as possible on machine downtime, meantime-between-failure, parts spend, tech utilization, technician response time and percentage of deliveries made on time. With this, you can begin to calculate the average cost of one hour of downtime.

PHOTO: MICHAEL ZHANG

2 Given your estimate on the average cost of one hour of downtime, you can then begin to measure the effect of maintenance on production. By making some simple assumptions (based on the cost of one hour of downtime), how much would an improvement of only five percent in machine availability be worth to your operation? Although it seems like a small amount, a five percent improvement can provide remarkable results.

3 Now look through the variables in your operation. How much more savings would be possible by initiating a plan for critical spares? What effect would an increased response time have on providing more machine availability? How would a work order system improve uptime?

4 As you analyze these variables, you will start to see opportunities to add more value. Now it's time to invest. Adding a Computerized Maintenance Monitoring System (CMMS) could have a monumental effect on virtually all your variables. That's because a CMMS system could provide work order information, it could also increase technician response time, which lowers your mean time to repair and reduces the amount of downtime.

5 After inputting work orders through the CMMS, every manufacturing asset in your operation is shown at the touch of a computer screen. Critical parts and spares can be tracked. Preventative maintenance (PMs) can be scheduled and checklists generated.


6 Moving from reactive requires planning for your technician's time as well as planning for having the right part at the right time. That's why introducing a scheduler planning function can be one more way to drive out downtime by maximizing machine PMs.

Introducing a scheduler planning function can drive out downtime

7 So now we are moving from a reactive model to a more proactive model. But where do we go next? Welcome to predictive tools. Along with a good PM checklist, it's important to develop a predictive PM checklist as well. Electrical equipment should have a thermography PM included to look for overheating issues. Rotating equipment should be scheduled for vibration analysis. And airlines need ultrasound scanning for air leaks.

8 So where do we go after predictive? Total Productive Maintenance (TPM) takes the maintenance to the next level by involving the operator. No one knows the day-to-day operation of a manufacturing asset better than the operator. So why not provide some simple ways that the operator can assist with maintenance. These could be as simple as installing sight gauges to monitor fluid levels or cleaning and repainting the asset to make leaks or malfunction more visible.

9 Now we are on the road to reliability. Reliability Centered Maintenance (RCM) puts it all together. Through this concept, your operations become more experiential. Individual machines are no longer brought down for scheduled PMs on a scheduled basis. Rather, they are run to the threshold of failure to assure the most productivity possible. In some cases, run to failure is permitted based on cost and mean time to repair.

10 Moving the needle from reactive maintenance to best practices in maintenance takes time, a complete cultural shift and talented maintenance technicians. And, with today's skilled labor shortage, finding and retaining skilled technicians can be difficult. So it is conceivable that you might need help from a third party – not only to find talented technicians – but help to establish the proper metrics and processes within your operation. To find the right third-party provider, don't be afraid to reach out to that provider's customers and ask the tough questions that only a customer can answer. Next, congratulate yourself for starting this journey to Lean maintenance. It's an investment that will pay handsome dividends for years to come. 

Jeffrey Owens is president and chief operating officer of Advanced Technology Services (ATS). Headquartered in Peoria, Ill., ATS makes businesses run better by improving the productivity and profitability of the world's most respected companies. Visit www.AdvancedTech.com to learn more.



Keeping temp workers

SAFE

Who has responsibility for the safety of temporary workers?

BY MATT TOWNE

Over the past 30 years, it has become increasingly common for businesses, particularly manufacturing, to hire employees on a temporary status.

This accomplished several objectives. It assisted potential employers to try out the employees to determine if they had the work ethic necessary to succeed, to allow their staffing requirements to flex in accordance with their workload, and to off load some of the liabilities associated with workers and the production process.

As this practice has become more common, it was probably

inevitable that it would become unclear who was charged with the responsibility to manage and thus accept liability for these “temporary workers.” This discussion will attempt to clarify a few aspects of this interaction.

Who Is Responsible?

Much of the specific guidance for determining which employer is responsible for different aspects of employment arises out of the contract established between the host company and the staffing agency. An example of this delineation is who is responsible for day to day supervision and who carries and manages the workers’ compensation insurance required by law. However, it is critical to note



PHOTO: TONY LOMAS; MATTZ90



that OSHA considers BOTH employers – host and the staffing agency – to be JOINTLY responsible for the safety of the temporary employee. The host employer is responsible for job assignments that are in keeping with the expected expertise level of the temporary employee, the working conditions and emergency planning and intervention. They are also responsible, and this is critical, for the specific knowledge needed by the temporary employee. For example, lock out tag out programs can be taught by the staffing agency but the specific lock out points and the hazards associated with their particular machines regarding lock out procedures must be taught by the host company. If a supervisor from the staffing agency is taught this information then he can relay it to the temporary employees. However, they must be taught the specific details by the host agency.

The Staffing Agency's Responsibilities

The staffing agency, depending on the contract, would generally be responsible for training that is more generic in nature. They often will also supply a supervisory level employee to oversee the work of the temporary employee. If this is the case, then this supervisory employee must have additional training to be able to perform their role and educate, oversee and guide the temporary employee. The supervisory role must be evaluated in the context of the environment in which they are placed. For example, workers packing boxes will tend to be a static environment. On the other hand, workers in a paper mill with heavy weights, a multitude of pinch points, chemicals and a labyrinth of buildings will require a much more skilled and knowledgeable supervisor. It is the staffing agency's responsibility to verify the work setting and expected hazards.

Typically, the staffing agency will provide workers' compensation coverage. By law, this shields the agency from third-party lawsuits, as workers compensation is viewed as "sole remedy" for the injury. The costs for providing this coverage are contained within the contract language with the manufacturer. It also exposes the manufacturer to what can be extensive liability from claims made by the worker unless the contract has language where the staffing agency holds harmless and indemnifies the manufacturer against all claims. This also has limits, in that any criminal actions, such as willful malfeasance with criminal

penalties, cannot be delegated off to another party. An example of this is when the staffing agency has trained the temporary worker in the agreed upon expected safety requirements. If the manufacturer then asks the temporary employee to enter a confined space, which was not part of the expected risks, and a fatality results, the manufacturer could be held criminally liable, with potential incarceration.

Both employers have a duty to know and protect temp workers

Ignorance of the hazards is no excuse. BOTH employers have a duty to know and to protect the temporary worker. Both will be held accountable in the event of injury. They must work together to determine the division and overlapping of duties for ethical management practices – and the law requires it. 🌐

Matt Towne is a Registered Nurse (RN) and a Certified Safety Professional (CSP). He is a highly qualified safety and health trainer for Lancaster Safety Consulting Inc. and is able to conduct OSHA trainings all over the United States. He has over 30 years of experience in the safety and health industry, with a wide range of experience working with all levels of management, outside agencies, employees and other stakeholders in various organizations. He is available for consulting, training, inspections and reporting. For information, contact Lancaster at (888) 403-6026 or online at www.lancastersafety.com.



5 steps to **IMPROVE** your work culture

Investing in people yields rewards

Getting your people to contribute more to your organization while simultaneously establishing stronger talent retention must cost a pretty penny, right? Not really, says corporate coach Maxine Attong.

“You don’t necessarily need to add expensive new ingredients to the stew, you just have to know how to use your ingredients better,” she says. “A talented chef – or in this case, corporate

or organizational leader – knows how to let an ingredient speak for itself, perhaps with just a touch of seasoning, or guidance.”

What is the guidance – competition or incentives such as bonuses? Not exactly.

“Most employees want to have more input,” says Attong, a certified facilitator and author of “Lead Your Team to Win: Achieve Optimal Performance By Providing A Safe Space For Employees”

(www.MaxineAttong.com).

“However, personal issues, fear of being laughed at or anxiety of not getting credit can stymie contributions from a leader’s staff.”

If a leader can engender a real sense of trust, the organization will benefit both from the individual and the team’s ingenuity. A reliable way of establishing a trusting climate is to make team members feel safe, says Attong, who offers five steps for doing so.

■ **SHARE RESPONSIBILITY; PRACTICE “I” STATEMENTS:**

With openness, encourage interaction by having team members and leaders enforce the rules and monitor the use of common space. When members break the rules, the team discusses the problems and decides on the sanctions and steps necessary to assist the member in following the rules next time. Speakers are discouraged from using the word “you.” Instead, they use “I.” This simple yet effective practice encourages personal culpability and discourages blame.

■ **CONSISTENCY:** Teams need to consistently follow the agreed-upon rules as they set the boundaries and the tone for relationships. Following the rules makes the behavior in the space predictable, which limits uncertainty and increases feelings of safety. Consistent application of the rules helps the team to increase trust as behavior becomes prescriptive and members know more or less what will happen in the room and how they will be treated.

■ **JUDGMENT:** The members must feel that they are not being judged. If someone says that an idea is bad, the speaker will shut down and feel embarrassed. In the future that speaker will hesitate to give ideas, since he feels his ideas may not be good enough for the team. Less confident team members may refrain from presenting ideas if they are uncertain of the quality of the ideas. However, many ideas that may seem strange or unorthodox

at first can wind up being some of the best.

If a leader can engender a sense of trust, individuals and the team will both benefit

■ **GOOD INTENTIONS:** Not all team members are effective communicators so it may be difficult for some people to frame and cogently express their thoughts.

“I assume all team members have good intentions and want a positive outcome,” Attong says. “Even though what I am hearing may be contrary to that assumption, I hold on to the thought so that I am able to fully understand what the member is saying before I react.”

When listening this way, the leader delays having a reaction and has time to assess the situation before responding. When the leader has emotionally detached from the situation, he can then ask questions to clarify the situation.

■ **NORMING:** By this point, team members seem to embrace each other and there is a spirit of togetherness. Do not be fooled by this. This doesn’t mean that your team has normed—that each team member makes decisions that advance the goals

of the team. It means that the safe space concept has allowed them to see each other in a more neutral light and accept each other’s strengths and weaknesses. While the space may act as an accelerator or catalyst for the team to norm, it is not magic. It does not mean that whatever problems existed within the team before have miraculously disappeared. The leader still needs to pay attention and check the team temperature. Regular team meetings and team building sessions should still be conducted. ☺

Maxine Attong (www.MaxineAttong.com) has been leading small and large teams for the past two decades – both in organizational settings and in her private coaching and facilitation practice. She has helped organizations come to consensus, overcome the perils of ineffective leadership, redesign processes to suit changing environments, and manage the internal chaos inherent in strategy implementation. She has been trained as a Gestalt Organizational Development practitioner, a Certified Evidence-Based Coach, a Certified Professional Facilitator, a Certified Management Accountant and is a former quality manager. Attong is a graduate of the University of the West Indies, and divides her time between the Caribbean and the United States. Her latest book is “Lead Your Team to Win: Achieve Optimal Performance By Providing A Safe Space For Employees.”



Creating a PRODUCTIVITY CULTURE

BY ERIC P. BLOOM

What does productivity mean to you? To many, it means more time, money and resources to get other things done. For example, if you have five people working toward the completion of a specified task and can find a way to complete it using only four people, you can have the fifth person working on something else. Productivity is the art of doing more with the time, money and resources you have at your disposal.

Productivity requires change. If your organization views the ability to change as an important business attribute, then ongoing productivity improvement can be the status quo. If your company is set in its ways, refuses to streamline processes and shuns innovation, then productivity improvement is not required. Any company that does not progress will soon stagger under its own weight and fade away. If you work at or own this type of firm, the best way for you to be productive is by updating your resumé. Conversely, an internal productivity culture that continually strives for optimal efficiency gives your organization the opportunity to enhance its market position, maximize its profits, increase its market share and position it for future growth and success.

There are six cultural attributes needed to give your organization the ability to accept the small and sometimes large changes that productivity enhancements require.

1. Cultural Awareness:

One of the most important business attributes of people leading the productivity charge is cultural awareness. This is the ability to understand your organization's internal politics, idiosyncrasies, strengths, weaknesses and how it gets things done. To make matters more complicated, organizations have multiple cultures, called subcultures. For example, the maintenance department may have a different internal culture from purchasing.

Before moving forward with a productivity initiative, you must ask yourself the question, "Does this organizational change require cultural change first?" The answer may be yes or may be no, it will depend if the changes being made are aligned and consistent with the current organizational culture.

2. Innovative Mindset:

Innovative opportunities to enhance productivity come in many forms. It could be successfully creating, implementing, reusing or improving an existing business

process that reduces costs, enhances productivity, increases company competitiveness or provides other business value.

Finding innovative solutions requires a willingness to look at existing operational processes with a critical eye – even if you were the one who originally designed them. Albert Einstein said, "No problem can be solved from the same level of consciousness that created it." You must think about your processes from different perspectives if you wish to improve them.

3. Management Focus:

Like all organizational initiatives, productivity related projects must have management support. If not, they most likely will not get funded. If they do get funded, they will eventually wither on the vine. If you're the project's executive champion, great! If not, you must find one that can provide you with the resources and political clout needed to move your productivity innovation from idea to ongoing business practice.

4. Employee Communication:

Virtually all productivity





organizational productivity.

A good thing to remember if your project is being slowed or stopped by a specific individual is that 99% of the time people are not against you, they are for themselves. This means that if you can understand the reason behind someone's objections, you can very often turn a presumed adversary into an ally.

When you gain understanding of your company's internal culture with respect to these six cultural attributes, you can enhance your entire organization's productivity. With this knowledge in hand, analyze the impact these factors are having on your organization's ability to foster innovation, communicate internally, expand corporate knowledge and implement change. Lastly, where appropriate, devise a plan to slowly move toward a true productivity culture. This culture, in turn, will be your stepping stone toward continuous improvement, change management and full utilization of the time, money and resources that your organization needs to grow and prosper. 🌐

Eric P. Bloom is president and founder of Manager Mechanics LLC, a nationally recognized speaker and author of the forthcoming book Productivity Driven Success: Hidden Secrets of Organizational Efficiency. He is also a nationally syndicated columnist and certified executive coach and a past president of National Speakers Association New England. For more information please visit: www.ManagerMechanics.com and on Twitter at @EricPBloom.



enhancements are a form of change; this change must be communicated to those affected by it in the following ways:

- Be clear in your own mind about what you want to say
- Be consistent over time in your messaging
- Be aware that varying audiences have different needs and worries.
- Explain rationale in a way that listeners can best relate to the issue
- People are persuaded more by human dimension than statistical facts
- Showing your genuine passion and enthusiasm has potential to create similar feelings in your listeners

5. Self and Organizational Learning:

Organizational learning is born through a combination of formalized education and business experience, both of which are driven (or suppressed) by the organization's internal culture. Educationally, different employees need different types of training in order to grow. Technologists need to learn new technologies. Senior executives need to keep abreast of industry trends and corporate best practices.

Lastly, all employees need to maximize their inter-personal skills, business skills and emotional intelligence. These skills collectively help employees of all levels to not only identify organizational efficiencies, but also provide the business savvy to make it a reality.

Professional curiosity in both individuals and organizations cause them to be introspective and more aware of their external environment. Introspection causes people to ask the question, "How can I improve?" External awareness causes people to ask the question, "What can I learn from my surroundings that can help me and/or my company successfully move forward?" Both of these questions lead to innovative thought and help drive productivity.

6. Conflict Avoidance and Resolution:

Productivity drives change and change drives conflict. The ability to minimize this conflict helps facilitate change, which in turn, drives productivity. Your personal and organizational ability to deal effectively with conflict can make or break your ability to enhance

Four ways to boost employee performance and job satisfaction

BY ASCANIO PIGNATELLI

Kevin Wilson was a great leader, but his team was not producing the results he knew they were capable of. One day he arranged a meeting with Jim Hefner, a recently retired executive who had built and led a team that shattered every single company performance record. “Jim, how’d you build such an amazing team? They not only outperform the rest of us but they seem to have more energy, confidence and fun than anyone else.”

“Kevin, I’m a big fan and follower of CSE. It’s a branch of industrial-organizational psychology known as Core Self-Evaluations. That’s what made us so successful. Ever heard of it?”

Kevin shook his head, “No.”

Excitedly, Jim leaned in to explain: “Well, CSE is the personality trait responsible for our temperament, our well being and how we judge our circumstances. It also drives our behavior. Those with high CSE are far more positive and confident in their abilities, satisfied with their jobs and perform them far better than those with low CSE. As a manager, your job is to coach and raise each of your employees’ CSE levels.”

Jim is correct; as a leader, your primary focus should be to personally coach the best out of your team members and raise their CSE levels. Doing so will ensure you are more satisfied with their work and perform it better. Fortunately, CSE can be easily assessed and increased by:

Shifting “Locus of Control”

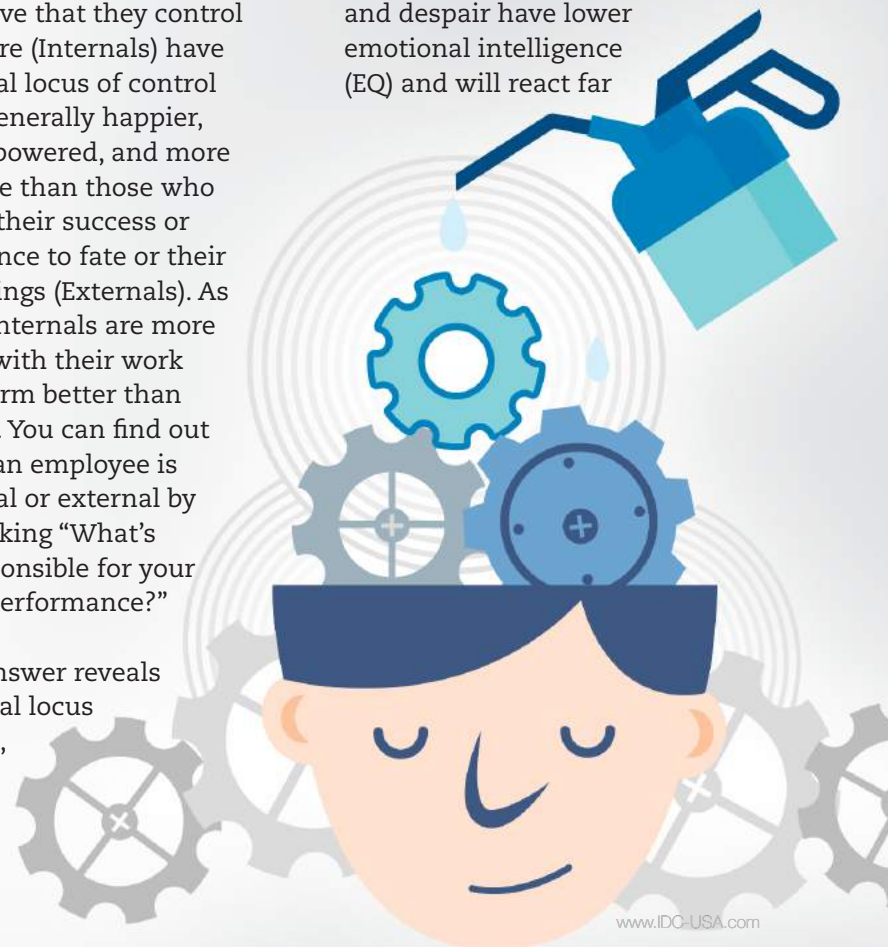
The “Locus of Control” is determined by the extent to which a person believed they control their success or performance. Employees who believe that they control their future (Internals) have an internal locus of control and are generally happier, more empowered, and more productive than those who attribute their success or performance to fate or their surroundings (Externals). As a result, internals are more satisfied with their work and perform better than externals. You can find out whether an employee is an internal or external by simply asking “What’s been responsible for your success/performance?”

If the answer reveals an external locus of control, shift

power back to your employee by asking “How has believing that you aren’t causing your success affected your career?” Let them explain so they can really experience how they’ve been limiting themselves, then ask: “If you knew that you were in complete control of your success, what would be possible?”

Increasing Emotional Intelligence

Employees with a tendency to easily experience unpleasant emotions like anxiety, depression and despair have lower emotional intelligence (EQ) and will react far



more negatively to stress. Because their EQ levels are lower, their ability to connect, understand and influence others is severely impaired. For Kevin and others in leadership positions, the need for emotional stability is even more paramount, as they are the face of the organization and set the tone for employee morale. If you have an employee who is emotionally unstable, consider asking: “What can you do to not get so stressed out next time you have a presentation/sales call?” Or “What might be a more appropriate way to react to an upset client/colleague?”

Instilling Self-Efficacy

Self-efficacy is the trait responsible for how likely we are to succeed with current goals and tasks, or take on a challenging assignment or “write it off” as impossible. (How likely we are to adhere to a diet or workout program is dictated by our self-efficacy.)

Those with high self-efficacy are more determined and persistent when dealing with adversity, and more likely to welcome new challenges as opportunities. The greater a person’s belief in their own power to influence an outcome, the more likely they are to succeed with a new challenge. The following four-step process can help you develop someone else’s self-efficacy:

■ **Build confidence** - Question any belief they might have that is limiting their performance. For example, if an employee thinks

they aren’t experienced enough to manage a project, you can remind them of their unique strengths and capabilities.

■ **Promote modeling** - Have inexperienced employees watch other colleagues with similar skills perform more advanced tasks so they too can develop those positive, “can-do” beliefs.

■ **Evaluate to motivate** - Rewards, recognition and positive feedback are key to helping your employees feel more competent, motivated and open to growth. Negative feedback can devastate those with low self-esteem, as they almost always take it personally.

■ **Optimize the environment** - Create a vibrant, energetic, stress-free workplace that encourages your staff to get the nutrition, exercise and rest they need so they can perform their best.

Increasing Their Self-Esteem

Self-esteem is the approval we have of ourselves and the extent to which we see ourselves as capable, significant, successful and worthy. It is the most essential of the CSE domains since workers with low self-esteem are often unproductive because they are indecisive, fear making mistakes and strive for perfection, which leads to frustration when it isn’t attained. Generally they are highly irritable and pessimistic, and can drain the positive, enthusiastic energy of their more self-assured colleagues. Predictably, those with low self-esteem are more likely to be unsatisfied with their jobs, performing them considerably worse than those

with higher self-esteem. To boost the self-esteem of your employees:

■ Recognize and celebrate their successes and accomplishments as much as possible.

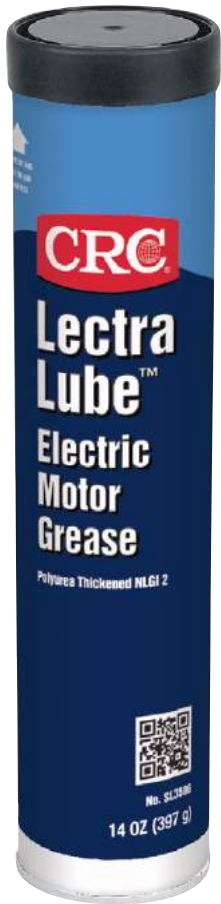
■ Express your gratitude and appreciation to them for the contribution and difference they keep making.

■ Be a model of kindness and compassion to others, especially those with lower self-esteem.

Conclusion

Jim Hefner understood that coaching the best out of his team meant raising their CSE levels. He did everything he could to raise those levels and, as a result, his team was always more satisfied with their work, performed it better and were more confident, motivated and enthusiastic. They were also far less stressed, had less conflict, coped more effectively with setbacks and were better equipped at capitalizing on opportunities. To better engage, empower and motivate your greatest resource and boost the bottom line, lead like Jim and raise those CSE levels. 🌟

Ascanio Pignatelli is an award winning speaker, seminar leader, coach and author of the forthcoming book Lead from Need. He is the founder of ApexCEO, an executive coaching and leadership development group that helps C-level executives develop the leadership and communication skills to create more engaging workplaces. To book Ascanio for your next speaking event or workshop, please call him at (310) 913-2313 or visit www.apexceo.com.



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