

The Four Cornerstones and Twelve Attributes of Safety Excellence

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Introduction

Traditional safety management involves writing a program that generally follows the OSHA Safety Standards. The program usually includes a policy statement, code of safety practices, rules and regulations, accident investigation, training, communication and inspections. The bulk of the program is a regurgitation of the safety standards as promulgated by the State or Federal OSHA. The organization then may add additional requirements to this program based on past experience, specific needs or external requirements.

The organization's concern for safety and the adverse effect of worker injuries really came to the forefront after the passage of workers compensation laws. This affected the cost of doing business and so focused industry's attention on accidents resulting from operation. The basic structure of most safety programs goes back to the three E's. This was created by the National Safety Council as a simplification of Heinrich's ten axioms for safety management. The three E's include: engineering controls, education, and enforcement. Virtually all the safety standards fall into these basic categories. The engineering controls try to buffer the worker from the hazards that exist in the work environment. Education deals with providing the employee with training on safe work practices and the use of protective systems. And of course enforcement deals with worksite inspections and causing the workers to comply with the organization's safety standards.

Traditional Safety Practices

Typically, safety improvement strategies commence with a review of past losses. The loss analysis then defines the interventions the organization engages in for the coming year(s). These interventions usually consist of more training, emphasis on certain program elements, and more rigorous inspections. In the short term some improvement is inevitable, but in the long run the results never live up to the organization's expectations. Some of this is because the improvement strategy is based on history and the future situation is never exactly the same as the past. The data analyzed may not give a true picture of all the contributing factors or causes. And more importantly this process is focused on the worker and not on the organizational systems, the culture, the climate, the leadership and so on.

This approach has been less than successful as shown by historical loss statistics. We are still, on average, injuring about 6 workers out of every 100 on an annual basis. Most of the

incidents that may cause worker injuries do not come from the physical environment, but from the actions of the employees. A research study of thousands of accidents conducted in Heinrich's time (1920s) found that they could not identify the cause of 2% of the accidents. 10% of the accidents were attributed to the physical environment and 88% resulted from actions of the employees at work. A later study of a much larger group of accidents attributed only 5% of incidents of the physical environment and 95% to the worker's actions. So the traditional safety program's emphasis on conditions does not focus on the behavior of the employees, and therefore has limited impact on controlling the cost-of-risk! This would seem like justification for the implementation of behavioral safety interventions.

Behavioral safety interventions started in the late 1970s and for about 20-25 years had a great following in many organizations, but the results from these efforts also tended to plateau, because it was focused on the worker. In fact many of those consultants who were proponents of behavioral interventions at the grass roots have modified their approach. These folks now generally speak about leadership. So their focus has turned to management, rather than the worker. The worker, in reality, can only control his/her behavior while management controls virtually everything else at the worksite.

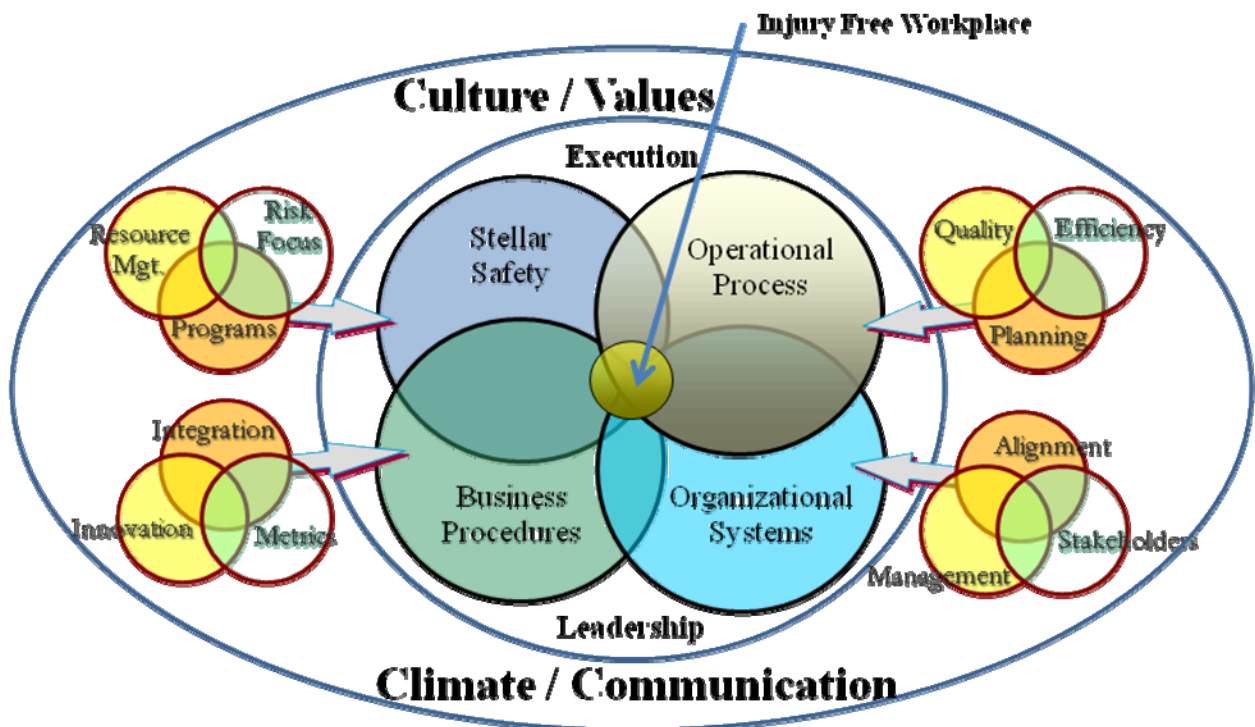
The worker works within a "system". The system represents everything within the organization which contributes supports, facilitates, and/or enables the product or service to be created. Injuries at work result from worker decisions or behaviors. The worker's behavior is influenced by management's actions, behaviors or prognostications, or in response to the organizational systems, processes or procedures, or it may arise from the fact that the worker must effectively function within the confines of these organizational system, or it by result from the worker's perception of management's wants and or needs. In other words the worker decisions or actions are a result of what management asks for or what the worker thinks management wants or expects of the worker

Risk is an inherent feature of systems. It is a quality, which to some degree, always exist. Systems are made up of elements or processes that function interdependently and harmoniously. Processes are made up of a series of tasks that produce an output or outcome. Tasks involve a series of actions. Actions taken without a clear understanding of the risks involved may result in incidents, some of which may lead to injuries and or losses. Another way to look at this is to fail to examine systems for discrepancies. Discrepancies in systems create risk. Risk then create process failure, which results in unintended outcomes such as incidents. So more recent thinking attributes the underlying causes of incidents to risks within the organizational systems, management's actions or statements, the culture and climate of the organization, and the workers reaction or understanding of it.

And of course there are the shortcomings in the way safety is managed traditionally. These include using an analysis of past losses to devise corrective interventions, using training to solve any safety problem, depending on OSHA standards to drive excellence, using loss statistics to measure program success, using inspections in lieu of planning to drive safety improvement, utilizing lagging indicators for improvement strategies. And the list goes on and on and on! The interesting outcome is that when these interventions are deployed they do make some impact and show some improvement but they invariably plateau. So the process is tried again but more vigorously or some past strategy is dusted off and reused. These methodologies have been used and reused for decades with less than long term successful results.

To resolve this deficiency in safety management, an integrated framework that is focused on the organization holistically and aligns safety with operations is the logical avenue to success. This framework obviously requires foundational elements as well as integration into the day-to-day processes and procedures so as to become an integral element in operations so as to become self sustaining. For long term effectiveness, it also has to become an integral part of the metric used by management to drive organizational behavior.

Framework for Excellence



The four cornerstones and twelve attributes of a highly effective safety process is such a framework. The success of this framework is dependent on an organizational culture that values injury-free work. The organization must create a culture that values and unequivocally communicates that fundamental belief, that nothing is more important than doing the job safely. The greatest challenge management has is to get the workforce to actually believe this, and line management to “live” it!

This framework creates an innovative, excellence-driven, business-focused approach to addressing challenges in the safety management process. The framework starts with a culture that has a vision and goals for excellence, incorporates leadership, requires win/win thinking, fosters empathic communication, and instills continuous improvement. These basic principles aligned with sound business practices create the basis for a highly effective approach to managing the safety process.

Value-Based Culture

In general terms culture is a set of basic common understandings learned, shared, and used by the members of an organization to manage internal processes and deal with external events. The culture of the organization becomes the framework within which the people of the organization cope and function. Edgar Schein, an MIT professor (who termed "corporate culture"), maintains that many organizational initiative's failures can be traced to not fully understanding the organizational culture. The organizational values and the action of its members create its unique culture.

An organization's values are manifested in the actions and behaviors of all levels of management as well as its employees. So, to create an effective enterprise wide safety framework, it is imperative to understand the organizational values and culture. To effectively initiate change, one must understand all the complexities of the culture. Therefore, understanding the three levels of culture is important to the design and implementation of any change initiative. The culture shapes the people and the people shape the culture. More importantly, the leadership of an organization plays a pivotal role in shaping the culture.

To effect change, management must have a vision of what it wants to accomplish. The vision is a "picture" of the future state. The vision must be clearly articulated to the organization. The vision sets the parameters for the creation of the infrastructure as well as the framework which, when appropriately designed and effectively implemented results in an injury free workplace. To make the vision come true management must have a strategy of how to accomplish this. And that requires leadership as well as management.

Leadership

Both leadership and management are necessary and critical to creating and sustaining a value based culture that promotes injury free work. Such a culture formulates processes and procedures to facilitate and foster excellence. Principle-centered leadership involves ethical behavior, causal thinking, inspiring a shared vision, as well as enabling and empowering everyone. It is all about modeling the way, challenging the process, and encouraging everyone to strive for excellence.

Management, on the other hand, is the process of obtaining, deploying, and utilizing a variety of essential resources, especially people, to effectively and efficiently contribute to an organization's success. Managers spend much of their time planning, organizing, controlling, staffing, etc. to achieve the organization's goals.

The critical elements of leadership enumerated above start with ethical behavior which means leading from strong principles. It involves behaving fairly, ethically, and with integrity, demonstrating concern for others as well as sharing of control, conducting meaningful communication, and providing relevant information. Principle centered leadership requires involves empowering others to act and giving credit where credit is due.

Leadership requires creative thinking - coming up with new ideas, seeing things differently (outside the box thinking) anticipating the future, facilitating improvement, etc. It involves strategic thinking – which is all about connecting creativity to values. Leadership is also

about transformational thinking – which is the ability to take radically new ideas and make them work. Leadership is also about model the way – showing others what success looks like. Work on small wins and show people that they can win. Leaders build people’s self confidence. Celebrate accomplishments, and are proponents of win –win thinking.

Execution

Execution is one of the underutilized opportunities for improving the performance of an organization. It is true that organizations do execute in the sense that they carry out the day to day operations, but it is not treated as a rigorous discipline. There is more to execution than carrying out management duties. Proper execution can accelerate achievement of goals, improve effectiveness of strategy, streamline resource management, “lean“out process flow, improve the value stream and garner a competitive advantage for the organization.

Execution: Is not about getting or not getting things done. Execution is a specific pattern of behavior and techniques that managers and supervisors perform in order to influence outcomes. The discipline of execution helps in crafting robust strategies; secure the “right” resources, find the right people, and put them in the right places. Execution paces everything, and aids in accomplishing change. Execution is about becoming deeply and passionately involved and engaged.

Stellar Safety

For safety to become an effective cornerstone of a framework for excellence, its three attributes have to be defined and implemented. The attributes of stellar safety are an effective process to accomplish the program intent, a universal focus on risk and effective management of resources as they relate to managing the safety process.

Programs: The safety program includes all the sound engineering practices, state of the art education, and audits to ensure that policies and procedures are followed. The safety process must also have elements that address the unique needs, risks, and exposures of the organization. The program must become a process which is integrated into operations so that it is a true “part” of the way things are done.

Risk Focus: Traditional safety management focuses on identifying worker exposures to physical hazards and worker behavior. These kinds of interventions do result in some improvement but never achieve sustained excellence. The reason for this is that injuries may be driven by other risks that are not dealt with in the “hazard-exposure” analysis. Risk resides in all the processes and procedure, business practices of the organization and its operations. To successfully achieve an injury free workplace every aspect of the organization must be evaluated for risks that flow to the worksite and influence or impact the worker’s decision making process.

Risk must first be identified; this is followed by analysis of the organizational systems that drive the risk. Once this is done, then integrated solution may be created to effectively eliminate or reduce their adverse effects. System risk is created by processes or procedures that do not function in harmony with each other. Organizational interventions sometimes are created to address specific issues without thinking through all the ramifications and side-effects. These “friction points” create occasions where employees have to make decisions on how to overcome

the barriers in order to accomplish their tasks. So decisions have to be made and they are made based on the “best” information the employee possess at that point in time. The outcomes may not be what the organization wants!

Resource management: There must be ample resources and staff to manage the process. Everyone and everything must be geared towards addressing, facilitations, and improving safety outcomes. Injury free work needs an executive level champion to provide support, remove barriers, and resolve issues as they arise. Diligent execution is imperative.

Operational Processes

Planning: Per-operational planning is by far the most important element in this cornerstone. Planning is critical to any venture. The key is to plan the work with safety in mind. To effectively plan for safety, pre-operational planning must occur very early in the process with the participation of the affected stakeholders. Effective planning identifies the risks associated with the means and methods selected the timing and sequencing chosen, the people assigned and the expectations set for the project, and strives to eliminate or manage those risks. Pre-operations safety planning means designing with safety in mind. Its purpose is to anticipate safety hazards before they occur, and to incorporate control measures at inception so that workers are not faced with multiple risks while performing the work.

Efficiency: Manufacturing uses a discipline called Lean that focuses on process speed and efficiency. This process has assisted a number of innovative organizations in garnering tremendous efficiencies in their operations as well as becoming more nimble in product and process innovations. Lean Transformation starts with the elimination of the seven wastes, and the implementation of the five Ss, which establish the prerequisites of process thinking, and value mapping which are fundamentally necessary for supporting further systems improvement. Another Lean thinking tool is constant process analysis and pull production.

Lean thinkers agree that Lean Transformation is not a collection of tools, but rather a holistic approach to an enterprise-wide process that is designed to vertically integrate the people with the strategy and horizontally align the customer with the internal processes. The critical point of lean thinking is value. Lean thinking requires a complete and critical review of the value stream. It involves a study of every step from conception, through design, production, information management, up until delivery to the customer. Continuous flow brings efficiency to the process. With the above three elements in place Lean thinking can shift to higher efficiency by being able to provide exactly what the customer needs without any backlog or inventory. Thus value is created; resource utilization and profits are maximized.

Quality: The Six Sigma process is a widely used data driven, customer focused quality improvement process, which has been successfully used by a number of multinational organizations to drive improvement through facts and information so as to achieve better solutions. Besides customer satisfaction Six Sigma strives: to improve, cycle time and reduce defects. Six Sigma not only is useful in the quality improvement process, but also is a powerful business initiative. Six Sigma is an organizational commitment to the philosophy of excellence, with a strong focus on the customer, internal process alignment and data driven decision making. Six Sigma is about aligning the organization to better meet the ever changing environment and

customer's demands, as well as responding to the organizational, employee and shareholder needs.

Business Procedures

Integration: Business and operational integration are crucial to the creation of an injury free workplace. The internal systems, processes, and procedures must be in harmony and all work towards the creation of an injury free workplace. This internal alignment means a 360 degree focus horizontally, vertically and inside to outside flow. It requires empowerment of people, providing them with relevant and timely information, as well as resources, incentive and leadership, as well as flawless execution.

Innovation: Innovation, growth and learning are important because of the nature of modern business. Just about the only constant in business is that change is inevitable. And change is occurring at faster and faster rates. So the organization has to understand their competitive environment, their customers (stakeholders) needs and wants, be early adopters and change leaders. Innovation should be encouraged and rewarded. The idea is to create a synergistic environment.

The innovation continuum includes efficiency, evolutionary, and revolutionary innovation. Growth involves increased knowledge and understanding of the employees thereby enabling them to effectively operate, and support the internal integration and alignment necessary to create the injury free workplace.

Metrics: To effectively manage you need to measure, senior management understands that the measurement system influences organizational behavior. Effective measurement has to be predictive as well as prescriptive in nature if it is to provide information for managing performance. Measurement is difficult because it is not an exact science. There are no hard and fast rules, of how to go about it. To add complexity to measurement, it is difficult to foretell the impact on individual behavior, the interactions and interrelationships between existing diverse variables, and the new ones produced by the new metrics. This is because people are involved and their actions are inherently unpredictable. Another thing that contributes to the complexity is that often important factors are hard to measure consistently and objectively. To effectively measure this, variability must be designed out of the system.

The scorecard also serves to bring together into one report several important but seemingly diverse aspect of the business, such as the external as well as the internal focus. Any organizational scorecard will influence the thinking of senior managers and force them to consider all the important operational measures holistically. It also allows them to see if improvement in one area is gained at the expense of another. "Even the best objectives may be achieved badly," Another important aspect of the organizational scorecard is that it creates a platform for alignment within the organization. This is important to strategy deployment, as well as guarding against sub-optimization.

Organizational Systems

Alignment: Ultimately the success of any enterprise (growth and profit) is dependent on the alignment of the between all stakeholders, strategy and process. Alignment provides mangers

with the ability to simultaneously deploy strategy, focus on the customer, develop employee capabilities and improve business processes. In system thinking the relationship between parts becomes as critical as the parts themselves.

Alignment is an on-going process and requires attention, adjustment and re-alignment in order to respond to change which is a given when dealing with people and external forces. Alignment provides a way to link people to strategy and integrate them with the customer (stakeholder) and internal process improvement. Culture and leadership becomes the crucial determinant driver that enables and empowers the organization to rapidly adjust to changes in the environment.

Management: is necessary to accomplishment. To manage effectively metrics are required. Management is all about getting things done. It requires planning, organizing, staffing, controlling and directing. To effectively manage we also need to lead. Effective management drives organizational behavior.

Stakeholders: In safety everyone is a stakeholder. From the worker to senior management and everyone wins if the operation proceeds injury free.

Injury-free Workplace

Excellence in safety can only be achieved through a strategy-driven, performance-based safety management process. The question is now how can we devise a safety process that will enable us to take advantage of a framework to impact safety performance? Obviously we need to approach the process holistically. Safety should be fully integrated into the organization's operations, and safety outcomes should be aligned with business goals. Therefore the safety process will become woven into the very fabric of the organization and achieving an injury free workplace will naturally flow from the operation.

Applying balanced, holistic thinking to safety has tremendous possibilities and potential. The four cornerstone framework provides safety with a structure for integrating safety into operations. Safety finds itself addressed in tactical as well as strategic planning. The organizational systems that drive efficiency and quality are applied to the safety process. Safety goals are aligned with business objectives, thereby creating a linkage between resource needs and allocation. This framework addresses the needs of all the organizational stakeholders and creates a holistic and integrated approach to managing safety. The result is that the process creates innovative solutions that not only meet but exceed the organizational and business expectations.

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