

Mastering the 5 Core Principles and 10 Key Elements of a Successful Safety Process

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Introduction



Developing a superior safety culture is a comprehensive and complex process. In order to effectively manage its complexities, the safety process can be broken into 15 primary safety systems, which consist of 5 Core Principles and 10 Key Elements. Understanding, measuring, and improving the 5 Core Principles and 10 Key Elements is essential to achieving safety success. Positively impacting an organization and affecting the beliefs, values and practices of every employee requires broad mastery of these concepts.

To safety professionals and most business leaders, these concepts are not revolutionary - they are well known, and that is part of the problem. Familiarity with these concepts does not mean

mastery. Honest and accurate assessment of each of these systems will reveal deficiencies that must be addressed to progress.

Based on the practical, straightforward concepts presented here, the safety professional must refocus and lead the way for these changes to redefine the critical business function of safety. It is through organic safety growth that strong systems will be leveraged to greater gain, weak systems will be strengthened, and the practice of safety will be advanced.

5 Core Principles

1. Safety is a **corporate and individual value**. There is a clear safety philosophy that is communicated, understood, and visibly demonstrated throughout the organization. Words of commitment are seen in action.
2. Safety is managed as a **distinct business function**. Regulatory compliance is given top business priority. Safety professionals provide guidance and expertise.
3. Formal and informal **leaders** at all levels throughout the organization are **supported and trained** to manage the safety process.
4. **Accountability systems** are in effect to ensure that clear **expectations** – with appropriate **authority** and oversight – improve safety processes.
5. The **10 Keys to Safety Process Excellence** are understood and followed. Periodic assessments determine improvement strategies.

CORE PRINCIPLE #1

The benefits of good safety are explained, understood, and accepted. Examples that support safety values are highlighted. A safety policy and philosophy statement is written so that it can be updated with current initiatives without having to change the core meaning. Persons in positions of authority and influence find opportunities to demonstrate the philosophy. They state their vision and then show that they know how to set the example about which they speak. Their actions define the standard of safety across their scope of influence.

CORE PRINCIPLE #2

Safety management is different from other business functions – it can't simply be integrated into them. Where synergies are logical, they should be leveraged – but there are great limitations. Comparisons with other disciplines illustrate this point. Quality is an important part of production or service, but it is also a separate discipline requiring different types of expertise. Manufacturing personnel must understand quality, but quality assessments still must be performed as the product is being made, and in labs to understand the effects of factors that determine product or service quality. Similarly, other business functions are even more separated. Human Resources is

obviously a distinct discipline that is managed separately. The same holds true with Legal, Sales, and Supply Chain Logistics. Differing degrees of proficiency are needed by everyone to effectively manage a business, but specialized technical expertise is required for individual business functions. Safety management is no exception.

Instead of buying into the irrational notion that safety should be integrated into other business functions, safety professionals should be advancing the reality that safety management is extremely difficult and complex, and great effort is required for success. As long as there is competition among all business disciplines for scarce human resources, the characterization of safety as a discipline that can be integrated is very shortsighted and counter-productive.

Regulatory compliance must be a given. More importantly, the intent to comply must be ever-present. When the intent to comply is present, non-compliance will be found and corrected. When organizations with mature safety processes become over-confident about their compliance, insidious deficiencies will creep into the process. They may brag about catchy programs that serve as nice window dressings, while regulatory compliance declines. Even as OSHA frequency rates are remaining low, the whack on the head usually happens with a serious injury or other major incident. The warning signs are usually prevalent but the right type and amount of diligence is not being paid. There is a false sense of security.

Many safety practitioners have exacerbated their professional image problem by allowing psychologists promoting behavioral-based approaches to co-opt far too much control and financial and human resources. After exhausting their limited real-world knowledge, and wreaking havoc in many companies, these doctors of safety-spin have now resorted to expanding their limited knowledge of safety into other safety systems.

These are the challenges facing the safety professional in today's business environment. These are the challenges that have generally been avoided. The result in many organizations is that safety is managed as a second-tier function. To offset this disparity, safety professionals and safety leaders must become more assertive. They need to learn how to effectively demand the resources to manage their safety process. Instead of assuming, "We don't have the money for that," they need to make a business case for procuring the resources. They need to make the person holding the purse strings say no--in writing, if necessary. In certain cases they may need to put their job on the line to create the value of safety that will dramatically impact the safety culture.

CORE PRINCIPLE #3

Formal and informal leaders within an organization set the standard of safety. Management leaders set parameters and general guidelines. Front-line and informal (natural) leaders determine execution of the process. Identifying who these players are, and including them, is the first step. Those leaders with the title are easy to identify. The informal leaders are a bit more difficult to identify. Formal leaders have roles according to their level in the organization and their job duties. Informal leaders may have any function, and may have a very broad scope of influence. It is essential that all of these leaders be convinced that their beliefs and actions will have a profound effect on the safety culture. Their input must be considered and they must be supported and trained. The link between these leaders and safety success cannot be underestimated.

CORE PRINCIPLE #4

Because the management of safety is so difficult, systems must be in place to ensure that resources are appropriately allocated and that all employees are engaged. Essentially, the purpose of an accountability system is to identify everything that needs to be done and to make sure that it gets done. This is a perfect opportunity to integrate with the accountability system of the organization, assuming there is one in place. Otherwise, a separate system must be developed. Whether or not an existing accountability system is used, the important part is to understand all that must be done and turn these items into action plans. This is much more than just including a rating for safety in a performance appraisal system.

Decisions must be made to delineate responsibilities between the technical safety staff, the line organization, safety teams, management, formal and informal leaders, and all other personnel. One objective is to assign meaningful duties to each employee. All personnel in all departments should be included for maximum effect. Duties should be assigned so they reflect the 5 Core Principles and 10 Key Elements presented here.

Finally, the relationship between responsibility and authority must be taken into consideration when establishing the accountability system. For good reason, the first thought some people have when accountability is discussed is that someone will be blamed when things go wrong. For this reason, responsibility and accountability must be balanced. Accountability, without the authority to control one's destiny, is blame!

CORE PRINCIPLE #5

This principle simply makes the connection between the 5 Core Principles and the 10 Key Elements. This comprehensive approach develops a culture of safety success that:

- Builds upon strengths;
- Improves upon weaknesses; and
- Eliminates failures.

These principles and elements are mutually dependent and synergistic. That is, as improvements are realized in individual principles and elements, benefits are collectively magnified. However, each principle and element must be measured individually. There must be a thorough understanding of measurement criteria for each system, and, most importantly, there must be desire and ability to identify system strengths, weaknesses, and failures.

The measurement system must be lean, not burdensome. Assessment methods may vary, but some combination of internal and outside assessors is preferred. This approach is very compatible with the ANSI Z10 standard on Health and Safety Management Systems and can be integrated into other HSE regulatory compliance auditing protocols commonly used.

A great deal of energy is currently being expended to more accurately measure safety performance using upstream predictors and downstream results. This is a very welcomed undertaking. The hope is that a strong consensus can evolve – one that ultimately eliminates the use and reporting of OSHA frequency rates as a measure of safety performance, as they do not provide an accurate picture.

10 Keys to Safety Process Excellence

1. **Policies** and **procedures** that make sense are in place, properly administered, and consistently followed.
2. **Design, engineering, and change management** consider and resolve safety and hazard impacts for all new and modification projects.
3. Safety **training** is robust. Interesting and effective safety **meetings** are held regularly. Trainers are competent and use adult-learning presentation skills.
4. **All** employees are engaged and contribute. **Leadership** at all levels set the right example and are supported. **Employees manage** the safety process through widespread participation.
5. **Auditing** activities proactively assess and measure how employee **actions** and workplace **hazards** are related. Results are used to **manage risks**.

KEY ELEMENT #1

Policies and procedures are to be in writing in such a way that they are understood, agreed upon by all stakeholders, and consistently followed. The best way to ensure these requirements are met is to include representatives from all stakeholder groups in the process of developing policies and procedures. Content should be written at a level where training can be effectively conducted and those who must execute the work understand what to do. Potential problem areas, such as shortcuts, should be highlighted.

KEY ELEMENT #2

Safety is built into the work environment. For new projects, formal health, safety, and environmental evaluations are performed at the earliest stages and impacts are addressed during the costing, approval, design, build, and start-up phases. An excellent model to follow is OSHA 1910.119 Process Safety Management of Highly Hazardous Chemicals. A common problem is that HSE evaluations are done too late in the game when there is no money available.

For modifications and change management, the same concepts apply. Formal procedures must be in place to evaluate and address hazard impacts of the changes. For all new or change projects, all aspects of operation and maintenance must be considered. Many safety risks surface long after installation as workers have difficulty trying to operate, troubleshoot, or maintain a piece of equipment.

KEY ELEMENT #3

For most organizations, safety training and safety meetings are a very significant expenditure of time, money, and effort. Quite often, those being trained are being paid premium overtime rates. With this financial factor in mind, a cost-benefit analysis of safety training programs in many

organizations fare very poorly. Trainers are incompetent, attendees are bored, learning does not translate to safer performance, and large amounts of money are wasted. These are the deficiencies that must be reversed to improve in this element.

KEY ELEMENT #4

Employees should not be given the option as to whether or not they will contribute to the safety process. How all employees will contribute should be clearly defined and explained. Because there is so much work to be done, everyone is needed to help.

Leaders at the top of the organization have the broadest scope of influence and they must set the right example and provide the resources. They should be assigned specific duties that will demonstrate the commitment to safety. Line and Staff leaders throughout the organization have the same responsibilities. Front line leaders and informal leaders play a critical role because they set the day-to-day standards for safety and are most frequently seen and heard. They are the final translation of the value of safety to those performing the work. The reality that the front line is the most important role in safety has held true since the early days of modern safety. This basic tenet is so simplistic that some organizations have made the major mistake of forgetting it.

Organizations with successful safety processes transfer more and more ownership to employees. This does not mean rank and file employees only – it means a cross-section of the organizational hierarchy including line and staff management, and front line workers. Within this structure, informal leaders have the greatest impact. Failure to identify, train, and utilize these informal leaders is to miss a powerful influence and will greatly impede the potential of improvement.

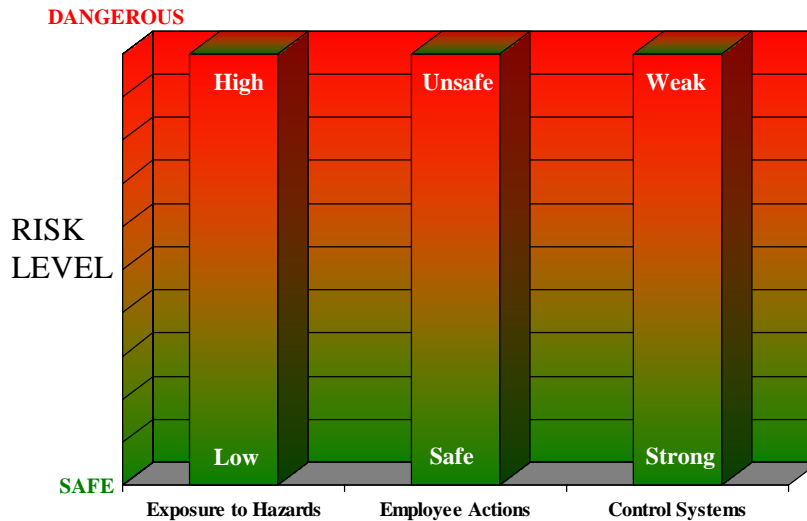
KEY ELEMENT #5

Another safety activity that requires significant time, effort, and money is auditing. To gain the most benefit, a balanced approach is needed. And the balance must be split between the three components of risk – workplace hazards, employee actions, and control systems. Each of these components is quite complex. Workplace hazards include physical hazards such as unguarded crush points, and poorly designed/maintained equipment. While it is important to identify and correct these hazards, many organizations spend an inordinate amount of auditing time on physical hazards. Physical hazards will always exist, and they will never be completely eliminated. A set of stairs can be perfectly designed, but inherent hazards still exist. Equipment breaks, machinery fails.

Auditing efforts must also focus on actions of employees and control systems. Behavior-based safety addresses the component of employee actions and this is a good start, but it must be kept in balance since it basically addresses one component of one element of the comprehensive safety process. Good employee action auditing includes engaging employees in discussions about the hazards they face, the shortcuts they are tempted to take, mental states that affect their performance and the performance of their coworkers, and other safety factors of their job. Control systems are everything we do to prevent accidents and are defined as sub-systems within the 5 Core Principles and 10 Key Elements. Many methods and techniques are available to evaluate these systems. Whether the audits are regulatory compliance or management systems, they are all dependent on the intent of the audit and ability of the auditors to see the real picture. Where there is an ‘us versus them’ mentality, the likelihood of getting accurate results is small.

COMPONENTS OF RISK

HAZARDS – EMPLOYEE ACTIONS – CONTROL SYSTEMS



10 Keys to Safety Process Excellence

6. **Communication** of the safety message is planned and delivered effectively. **Feedback** is sought to verify understanding and agreement.
7. Safety-related **incidents** are promptly **investigated** to determine and correct true root causes. The potential for recurrence is minimized.
8. Creative, **process-focused** innovations drive improvement. Identifying and strengthening **safety system** deficiencies grows the culture of safety.
9. **Reward, Recognition, Reinforcement,** and **Incentive** programs focus on preventive actions and resulting achievements that develop safety values.
10. **Safe lifestyles** are promoted through wellness, physical health, off-the-job injury prevention, and family involvement activities.

KEY ELEMENT #6

Poor communication is a problem that plagues most organizations, and it is certainly a major safety concern. Communication problems can be described as insufficient, information overload, wrong messages, not timely, one way, and irrelevant. Safety messages must be sharply focused bearing in mind the target audience and the forum in which it will be delivered. A mechanism to gauge that the intended message has been received and opportunities for feedback should be planned. Key safety information that should be communicated includes accidents and injuries, investigation findings, corrective actions status, accountability expectations, performance metrics (other than OSHA rates), audit results, and success stories.

KEY ELEMENT #7

Most accident investigations are poorly done. Facts are not determined, evidence is mishandled, superfluous data distorts critical information, witness interviews are improper, superficial root causes are noted while system failures are not addressed, human error is assigned too much blame, corrective actions do not follow the hierarchy of controls, are some of the more commonly found problems. Proper accident investigations accurately determine what happened, why it happened by evaluating the components of risk – hazards, employee actions, and control systems, and what corrective actions must be implemented to prevent similar accident potentials from recurring. A great deal of training and proficiency is needed by investigators to have an effective accident investigation process.

KEY ELEMENT #8

Superior safety performance is reached by methodically improving upon the 5 Core Principles and 10 Key Elements. Focusing on the safety process is a comprehensive approach that seeks to understand safety systems. Problem-solving models are applied to systems within the safety process in much the same manner as when solving quality or manufacturing problems.

Why is this difficult? Simply having a key element in place does not mean the element is functioning effectively. For example:

- Merely having an incident investigation process in place does not ensure that employees are not blamed, true causes are found, and corrective actions prevent recurrence.
- Holding regular safety meetings may be of negative value if they are done poorly.
- A vice-president obviates line and staff accountability by telling employees they have a strong safety culture when, in reality, safety is compromised when production demands are high.

Defining issues like these and facing them head-on requires expertise, determination, and courage.

Another reason focusing on the process is difficult is that it appears too simplistic. When the focus is not on the process and OSHA recordables are the primary measure of performance, there is a perception by management that the safety process is broken, and pressure mounts to develop another program. When this happens, organizations are tempted to fall for the latest fad just to make it look like they are doing something. To keep this from happening, the safety profession must employ creative process-focused innovations that drive superior safety performance.

KEY ELEMENT #9

Reward, recognition, reinforcement, and incentives (“RRRI”) are powerful motivators and their impacts must be clearly understood. When employees understand and meet their performance expectations, they should receive some form of RRRI. The proper administration of RRRI for safety achievements will develop strong safety values among employees. Conversely, the misuse of RRRI can be extremely detrimental. Quite often, unsafe and at-risk activities are positively reinforced, condoned, ignored, and therefore implicitly approved. The resulting negative impact on safety culture is usually not recognized or understood.

RRRI should not be given for reaching targeted OSHA frequency rates. Random-drawings, grand prizes, and giveaways are also not desirable. All RRRI must be earned.

KEY ELEMENT #10

Promoting safe lifestyles has many benefits. Employees with a 24-hour safety mentality who practice safety on and off the job and are physically fit are more likely to remain injury-free. Activities that promote wellness, injury prevention, and family safety should be developed. Employee assistance programs for troubled employees should be available, and fitness-for-duty requirements should be established.

CONCLUSION

The philosophy of organic safety growth is to focus on the safety process and the systems that comprise the process. It’s an easy concept to comprehend, but a very challenging philosophy to execute.

Achieving success in safety requires a broad mastery of many philosophies and disciplines. Safety success is fully dependent on:

- Instilling individual and corporate values that determine culture;
- Executing demonstrative actions that prove intent;
- Knowing who is determining the safety standard and how to leverage their influence;
- Ensuring that authority and accountability correlate positively;
- Communicating an organized message;
- Identifying organizational barriers;
- Fostering participative engagement;
- Relating hazards, control systems and employee actions to control risks;
- Training competency that actuates consistency and quality;
- Determining systemic deficiencies that are true causes of incidents;
- Increasing positive reinforcement and eliminating negative reinforcement;
- Harnessing engineering capability and managing change effectively;
- Promoting safe lifestyles and mental synergy;
- Measuring key performance indicators; and
- Improving the diverse systems that comprise the safety process.

This cutting-edge methodology is superior to other approaches to safety improvement, which cannot deliver desired results because they are:

- Too narrowly focused: For example, behavior-based systems may have an effect on some employee actions, but have little effect on various risk-control systems such as hazard

abatement, management systems, safe design, root cause analysis, and management of change.

- Too superficial: For example, Management System Assessments have a broad focus on programs being in place and functioning, but rarely reach below the surface to identify subtle and insidious deficiencies that greatly affect the safety process.
- Too theoretical: All types of programs are developed with admirable intent in theory, but when foisted upon an organization, these inadequate programs just don't work because of too little planning and insufficient beta testing.

Varieties of programs are developed and instituted with good intent and may be supported by significant funding. But safety management is such a complex organizational discipline that often success is limited and short-term. Safety management at the highest levels of performance is just as tough as quality, productivity, maintenance and human resource functions. Companies must be willing to expend this level of effort, and once committed, they must know how to manage safety at a high performance level. Success is dependent on understanding just how formidable safety culture change actually is.

Organizations must be trained to take a panoptic view of organizational safety dynamics. They must be able to see the entire safety process at once. While this view is very difficult, it is possible if the entire process is understood and monitored for high-level performance. Seeing the entire picture means understanding how the principles and elements are inter-related and synergistic.

Attaining superior safety performance will require safety professionals and the organizations for which they work to recognize and accept that high-level safety performance is a comprehensive and complex discipline. Managing safety and affecting the beliefs, values, and practices of every employee in order to create a superior safety culture is a great challenge. There are no easy answers or quick fixes as most progressive organizations have found out. But the ability to excel is possible if the 5 Principles and 10 Key Elements of a successful safety process are understood, managed, and measured.