## Safety Management

# Corporate Culture

Examining its effects on safety performance

By Judith A. Erickson

SAFETY PERFORMANCE is divided into two aspects: safety program elements and safety process elements (Erickson, 2006). The program elements deal with basic safety functioning: regulations, legislation, training, audits and related items. These elements are considered hard skills and are under control of the safety professional. The process elements are the underlying factors within an organization that either help or hinder the safety effort. These soft skills are indicators of the corporate culture, and they are not under the safety professional's control (Erickson, 1994).

To achieve optimal safety functioning, both cultural elements and compliance issues must be addressed. The scientific evidence is overwhelming that both hard and soft skills are needed to attain optimal safety and business performance (Erickson, 1994; 2001; Shannon, Mayr & Haines, 1997; DeJoy, Schaffer, Wilson, et al., 2003; Vredenburgh, 2002; Zohar & Luria, 2004; Parker, Axtell & Turner, 2001; Hofmann & Morgeson, 1999; Hofmann, Morgeson & Gerras, 2003; Turner & Parker, 2003; Maierhofer, Griffin & Sheehan, 2000; Maister, 2001; Drucker, 1954; O'Toole, 1996; Maister, 1997; Buckingham & Coffman, 1999).

However, some in the technical or engineering fields believe that soft skills are not measurable by any standard technique or protocol. Within academia, natural and physical research scientists often posit this view when discussing the social sciences. Yet, with rigorous research design and protocol, social scientists can conduct scientific research that is quantitatively and statistically equivalent to that of natural and physical scientists. Through such methods, the effects of these soft skills have been statistically correlated with safety performance and organizational functioning. These measurements are available to researchers to help organizations improve their safety and business performance.

When assessing organizational culture, SH&E professionals must be aware of the scientific bases of the cultural interventions they select. They must

decide rationally and logically how they will assess their cultures and not be influenced by flavor-of themonth jargon. This will enable them to make informed, intelligent decisions that will provide corporatewide benefits.

### How Corporate Culture Affects Safety Performance

Assessing corporate culture as a means of increasing safety performance is gaining in acceptance and popularity. This was underscored by the Baker Commission Report, which presented an exhaustive analysis of the causal factors in the BP Texas City, TX, refinery explosion (BP U.S. Refineries Independent Safety Review Panel, 2007). In its introduction, the report states:

Although we necessarily direct our report to BP, we intend it for a broader audience. We are under no illusion that deficiencies in process safety culture, management or corporate oversight are limited to BP. Other companies and

their stakeholders can benefit from our work. We urge these companies to regularly and thoroughly evaluate their safety culture, the performance of their process safety management systems and their corporate safety oversight for possible improvements. We also urge the same companies to review carefully our findings and recommendations for application to their situations (p. 3).

The report also states, "The panel focused on deficiencies relating to corporate safety culture, process safety management systems, and performance evaluation, corrective action, and corporate oversight" (p. 13).

As this report emphasizes, corporate with manufacturing, aerospac culture assessments are applicable to all types of industries. However, such heavy construction industries.

Abstract: Research demonstrates that corporate culture influences an organization's safety performance. When assessing organizational culture, SH&E professionals must be aware of the scientific bases of the cultural interventions they choose. This will help them decide rationally and logically how they will assess their cultures and not be influenced by flavor-of the-month trends. This will lead to informed, intelligent decisions that will provide corporatewide benefits.

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SH&E professionals must understand and be familiar with the scientific and empirical foundation on which any safety

assessments are not successful by solely learning concepts or examining causeand-effect relationships. Rather, these assessments also must include an awareness of who people are, what they believe in, and how they act and interact in an organizational setting-elements that are basic to an organization's culture.

The traditional means of increasing safety performance—compliance with legislation and regulations—are not sufficient to obtain optimal results. SH&E professionals and their organizations need something more.

#### Addressing Both Sides of the Equation

In a general sense, safety performance intervention encompasses two key components:

1) complying with legislative and reguis based. latory requirements;

2) communicating and influencing effective and safe work behavior among employees.

With compliance and regulatory issues, SH&E professionals' knowledge and expertise of procedures, engineering controls, PPE and safety audits have been largely standardized. Safety professionals also provide necessary training, track injury severity and frequency, investigate and analyze incidents to identify contributing factors, and provide a multitude of metrics. Protocols have been established and deviancies from their requisites are well established.

When it comes to influencing and communicating safe work behaviors, however, the role of SH&E professionals is more complex. SH&E professionals have had a limited degree of success in influencing employee behavior in the long term. This is primarily because SH&E professionals do not control the corporate culture and, therefore, have no control over the many aspects of employee behavior directly related to the corporate culture that influences that behavior (Erickson, 1994). For example, safety professionals generally have no control over production being stressed above safety considerations (Zohar & Luria, 2004).

Research indicates that the key ingredient to high safety performance is the company's culture or management philosophy (Erickson, 1994; 2001). To understand what is meant by corporate culture, one must be aware of the pivotal roles played by assumptions, values and behavior (Shein, 1988; Erickson, 1994; 1997). Assumptions, taken for granted and unconscious, are related to the way people view human nature and human relationships, among other elements. These assumptions are translated into values, or how people believe they are supposed to behave or believe to be right or wrong. These values are then expressed in actions and behavior.

Both sides of the brain must be addressed to ensure the success of a culture assessment. The human brain has two hemispheres or sides (Buzan, 1974). For the sake of simplicity, the left side is associated with language, analysis, logic and linearity. It deals with the harder aspects of life such as mathematics and science. The right side processes images, imagination and daydreaming. It concerns itself with the softer aspects of life such as empathy, compassion and caring. The study and practice of safety and business management are primarily involved with leftbrain functioning. This seems to make sense since logic and analysis are necessary for both safety programs and businesses to be successful.

#### The Need for Evidence-Based Interventions

A 3-year nationwide study explored the effects of corporate culture on the level of safety performance (Erickson, 1994). The goal was to provide scientific data that would further the cause of optimal safety program organization and functioning. An extensive literature search performed as a prelude to that research indicated that no similar studies had been performed. The safety profession needed a scientific basis to support widely held opinions and numerous anecdotes that corporate philosophy played a major role in the level of a company's safety performance.

SH&E professionals must understand and be familiar with the scientific and empirical foundation on which any safety intervention is based. If independent studies are not the basis for these interventions, there is a reasonably good chance that companies may be wasting their time, money and effort on them. Initially, a nonscientific approach may produce temporary positive effects (the Hawthorne Effect), but long-term benefits may not be realized.

A similar case can be made for various management intervention programs. Pfeffer and Sutton (2006) stress the importance of focusing on managing based on evidence, data and facts. The central theme of this management book is the premise that decisions and actions should be the product of logical thought and be fact-based—in other words, they should be arrived at via the scientific method.

Both the practice of safety and business management need scientific evidence supporting them. However, many practices are often so well established that few question them. Strong evidence suggests that companies function better by using business principles based on high-quality research, rather than by jumping to implement the latest trendy approach (Pfeffer & Sutton, 2006). Despite this, many business operations and safety efforts are not truly based on hard, supportive evidence. Some platitudes have been repeated and taught so often that they are simply accepted as true despite evidence to the contrary.

Therefore, SH&E professionals should ask: How much of what we do to increase safety performance is based on scientific evidence or hard facts?

#### **Employees Want to Feel Valued**

The pivotal finding from the Erickson research (1994) is that the way in which employees are treated is the factor most significantly related to the level of safety performance. This finding was somewhat surprising since it seemed that safety-related considerations would be foremost. In addition to being more statistically significant than any safety-specific areas, it was the most predictive factor in the level of safety performance.

Research from disciplines such as human resources, occupational psychology and business supports this finding. Even though these disciplines examined different end points, such as absenteeism (Watson Wyatt Worldwide, 2002; Sutton, 2007; CCH, 2007), job satisfaction (Zohar, 2000; Bowen & Lawler, 1995; Turner & Parker, 2003; Bond, Galinsky & Swanberg, 1997), or profitability (Maister, 2001), the same or similar organizational cultural elements were instrumental in attaining organizational excellence.

An important occurrence for any researcher is replication of his/her research results by independent researchers because such results support the original findings. This dovetailing of research findings from diverse disciplines highlights the importance of treating safety in an integrative manner—as part of the organization, not in isolation. Therefore, one could reasonably deduce that safety interventions which solely target safety performance generally will not be effective in the long term.

People have long used the phrase thinking outside the box to mean reframing or looking at old information in new ways and from new perspectives. However, people often try to protect themselves when receiving information—if it does not match their points of view or frames of reference they try to ignore or reject it. People become used to old ways of thinking and feel vulnerable if pressed to process new and unfamiliar information. The current emphasis of caring and feeling for employees, rather than just ensuring that they work safely, may be construed as such a threat. However, people can challenge their preconceived ideas by being willing to examine their ideas with the scrutiny of critical thinking and analysis.

The assertions that soft skills such as communication, respect, listening, trust and caring are important is not "psychobabble." Studies from various disciplines indicate that organizational success is determined by these skills (Buckingham & Coffman, 1999; Watson Wyatt Worldwide, 2002; Maister, 2001; O'Toole, 1996). And, while it is natural to try to track these elements, they often do not seem to be measurable by any standard technique or protocol. However, their effects can be measured in both safety and business performance.

For example, one can be a technically competent SH&E professional, but unless employees perceive that the professional truly cares about them, the safety program may be far less than is possible. Consider this hypothetical scenario: A company has a technically competent SH&E professional, but his relationship with employees makes them feel he does not care for them as individuals. According to employees, he brags about socializing with managers, thereby suggesting that his status within the company hierarchy is more important than theirs. The employees do not care what this safety professional does when he is not working. Their concern is how

he does his job, how he relates to them and whether he cares about them and their welfare.

To be truly effective, SH&E professionals must care about employees and find ways to communicate their genuine concern for employee welfare. This requires application of soft skills.

Yet, as much as an SH&E professional may care, it is not enough if organizational support is lacking. This brings us to a basic underpinning of corporate culture: assumptions about human nature. For example, what are the basic assumptions concerning the nature of employees? One their genuine basic tenet of social psychology, the study of how people behave in groups, is that the stereotype of a group is never true of the individual (Brown, 1965). Therefore, there is no stereotypical employee. Employees are a diverse group of people. welfare. They are individuals with unique talents, abilities and ideas that can benefit their

organizations. How could a one-size-fits-all program work?

Another perplexing aspect of employee-oriented injury causation programs is the reasoning that employees are injured because 1) they do not know how to work safely or 2) they do not care to work safely. Education and training would seem to address the first statement. Yet, initial employee safety orientation is often not sufficient for attaining high safety performance (Erickson, 1994). Employees also need mandated periodic training as well as training when new processes, chemicals or equipment are introduced or when they are transferred to new locations or departments. This is an example of the power of scientific research—obtaining statistically significant and meaningful data. The second cited reason—that employees do not care to work safely—is simply difficult to believe.

#### **What About Leadership?**

As noted, more and more companies are analyzing corporate culture as a means of increasing safety performance. Many such interventions focus primarily on leadership. Although leadership is an integral part of communicating the corporate culture, unless basic assumptions and values are oriented to employees as valuable resources, leadership training is essentially meaningless (Bennis, 1989; O'Toole, 1996; Peters, 1987; McGregor, 1985).

Leadership is not a technique nor is it a function of position and authority. In the author's experience, it cannot be readily learned or taught since effective leadership is a function of personality, which begins with self-awareness. Awareness involves modifying beliefs about oneself and one's own behavior.

Maister (1997; 2001) provides a succinct synopsis of what effective leadership entails:

Those you lead will never have a longer-term horizon than you do. Those you lead will never

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operate to higher standards than you do. Those you lead will never be more optimistic than you are. Those you lead will never live the vision if you don't.

The expression "attitudes are caught, not taught" is telling. When talking with others, words and body language contain messages that address both the reasoned and emotional responses of others. Therefore, to talk about successful leadership is to focus on how to communicate with and respond to the needs of employees. The literature supports the assertion that leaders who treat employees as individuals, who allow them to think for themselves and accept responsibility to take initiative, are more likely to create safer, more successful businesses (Broadbent, 2004). For leaders to inspire and empower others, practical application of the soft skills is crucial.

#### **Perception Surveys:** A Step in the Right Direction

Organizational factors are statistically related groupings of subtopics, such as communication and employee involvement, that are directly and significantly statistically correlated with the level of safety performance (Erickson, 1997). To evaluate the effect of corporate culture on safety performance, one must address both safety program and safety process elements. An effective way to achieve this is through a validated perception survey that effectively identifies and evaluates both elements.

A validated survey is not only descriptive, it is also predictive. With a validated survey, the responses related to optimal safety performance are already known. Therefore, the survey responses and their statistically related organizational factors that are helping or hindering the level of safety performance can be readily identified.

This step is critical because in order to derive successful solutions, one must first operationally define the situation targeted for improvement. With an operational definition, such as that attained through a validated survey, everyone in the organization is defining safety in the same manner.

#### References

Barling, J., Loughlin, C. & Kelloway, K. (2002). Development and test of a model linking safety-specific transformational leadership and occupational safety. Journal of Applied Psychology, 87, 488-

Bennis, W. (1989). Why leaders can't lead: The unconscious conspiracy continues. San Francisco: Jossey-Bass.

Bond, J.T., Galinsky, E. & Swanberg, J.E. (1997). The national study of the changing workforce, No. 2 (Publication No. 98-01). New York: Families and Work Institute.

Bowen, D. & Lawler, E. (1995, Summer). Empowering service employees. Sloan Management Review, 73-84

BP U.S. Refineries Independent Safety Review Panel. (2007, Jan.). The report of BP U.S. Refineries Independent Safety Review Panel. Retrieved Sept. 23, 2008, from <a href="http://sunnyday.mit.edu/">http://sunnyday.mit.edu/</a> Baker-panel-report.pdf.

Broadbent, D.G. (2004). Maximizing safety performance via leadership behaviors. Invited presentation at the 28th World Congress of Psychology, Beijing, China, Aug. 11-14.

Brown, R. (1965). Social psychology. New York: The Free Press. Buckingham, M. & Coffman, C. (1999). First, break all the rules: What the world's greatest managers do differently. New York: Simon & Schuster.

Buzan, T. (1974). Use both sides of your brain. New York: E.P. Dutton Inc.

CCH. (2007). CCH survey finds most employees call in "sick" for reasons other than illness [Press release]. Riverwoods, IL: Author. Retrieved Sept. 23, 2008, from http://www.cch.com/ press/news/2007/20071010h.asp.

DeJoy, D.M., Schaffer, B.S., Wilson, M.G., et al. (2003). Creating safer workplaces: Assessing the determinants and role of safety climate. Journal of Safety Research, 35(1), 81-90.

**Drucker**, **P.** (1954). The practice of management. New York: Harper & Row Publishers.

Eastman, L., Kline, C.D. & Vandenberg, R. (1998, Oct.). Corporate culture does make a difference for a competitive edge.

Erickson, J.A. (1994). The effect of corporate culture on injury and illness rates within the organization. Dissertation Abstracts International, 55(6)

Erickson, J.A. (1997, May). The relationship between corporate culture and safety performance. Professional Safety, 42(5), 29-33.

Erickson, J.A. (2001, April). Corporate culture: The key to safety performance. Occupational Hazards, 62(4), 45-50.

Erickson, J.A. (2006, Jan). Survey says: Uncovering employees' views about safety. *Occupational Hazards*.

Hofmann, D.A. & Morgeson, F.P. (1999). Safety-related behavior as a social exchange: The role of perceived organizational support and leader-member exchange. Journal of Applied Psychology, 84(2), 286-296.

Hofmann, D.A., Morgeson, F.P. & Gerras, S.J. (2003). Climate as a moderator of the relationship between leader-member exchange and content-specific citizenry: Safety climate as an exemplar. Journal of Applied Psychology, 88(1), 170-178.

Maierhofer, N.I., Griffin, M.A. & Sheehan, M. (2000). Linking manager values and behavior with employee values and behavior: A study of values and safety in the hairdressing industry. Journal of Occupational Health Psychology, 5(4), 417-427

Maister, D. (1997). True professionalism. New York: Simon &

Maister, D. (2001). Practice what you preach: What managers must do to create a high achievement culture. New York: The Free Press.

McGregor, D. (1985). The human side of enterprise. New York:

Neal, A., Griffin, M.A. & Hart, P.M. (2000). The impact of organizational climate on safety climate and individual behavior. Safety Science, 34(1-3), 99-109.

O'Toole, J. (1996). Leading change: The argument for values-based leadership. New York: Random House.

Parker, S.K., Axtell, C.M. & Turner, N. (2001). Designing a safer workplace: Importance of job autonomy, communication quality and supportive supervisors. Journal of Occupational Health Psychology, 6(3), 211-228.

Peters, T. (1987). Thriving on chaos. New York: Knopf.

Pfeffer, J. & Sutton, R.I. (2006). Hard facts, dangerous half-truths and total nonsense: Profiting from evidence-based management. Boston:

Harvard School Publishing.
Shannon, H.S., Mayr, J. & Haines, T. (1997). Overview of the relationship between organizational and workplace factors and injury rates. Safety Science, 26(3), 201-217.

Shein, E.H. (1988). Organizational culture and leadership. San Francisco: Jossey-Bass.

Sutton, R. (2007). Building a civilized workplace and surviving one that isn't. New York: Warner Business Books.

Turner, N. & Parker, S.K. (2003). Teams and safety. In J Barling and M.R. Frone (Eds.) The psychology of workplace safety. Washington, DC: American Psychological Association.

Vredenburgh, A.G. (2002). Organizational safety: Which management practices are most effective in reducing injury rates? Journal of Safety Research, 33, 259-276.

Watson Wyatt Worldwide. (2002). WorkUSA 2000: Employee commitment and the bottom line. Arlington, VA: Author. Retrieved Sept. 23, 2008, from <a href="http://www.watsonwyatt.com/">http://www.watsonwyatt.com/</a> research/resrender.asp?id=W-304&page=1.

Zohar, D. (2000). A group-level model of safety climate: Testing the effect of group climate on microaccidents in manufacturing jobs. Journal of Applied Psychology, 85(4), 587-596.

Zohar, D. & Luria, G. (2004). Climate as social-cognitive construction of supervisory safety practices scripts as proxy of behavior patterns. Journal of Applied Psychology, 89(2), 322-333.