SAFETY PERFORMANCE

MAKING SAFETY A

By R.E. "GENE" EARNEST

t has been said that safety is not what is written in a company manual, but rather a "game of signals." Managers display these signals through their personal behaviors and decisions—actions which tell employees that safety is (or is not) a value. This article examines safety values and the accountability linkage that can make safety a basic value.

All companies have values, whether or not they have identified them. Until the 1980s, little had been written about company values. When business writers do discuss values, they typically address issues such as quality, service, innovation, importance of the individual and profits. As Peters and Waterman note, "Tough-minded managers and consultants rarely pay much attention to the value system of an organization. Values

are not 'hard' like organization structure, policies and procedures, strategies or budgets" (279).

It is even rarer to find a business writer who explicitly lists safety among company values because safety is often not associated with economic growth and profits. Yet, few companies would openly admit that safety is not a value. However, some companies may believe that safety is a value within their organization, when, in fact, it is not.

Values do not readily change and remain unaffected by the competing, daily fluctuation of other factors in the work environment. Safety is often referred to as a priority, not as a value. Priorities can change daily in response to situational demands. When safety is a basic value, it becomes the "natural way" of performing a job—anything less is unacceptable.

In Organizational Culture and Leadership,

Schein identifies three levels of culture. He uses the term "basic assumptions" to refer to the deepest level. He defines these assumptions as "non-negotiable, they are taken for granted, and when strongly held in a group, will find behavior based on any other premise inconceivable. They are the ultimate source of action" (16-22).

An organization's safety values can be described as follows:

•Individual Values. Values of individual members in a group can vary. For example, one person may place a high value on performing a job safely, while another may value completing the job, with little regard for safety. How an individual values safety guides his/her behavior when making decisions about safety.

One individual's values can influence an entire group's safety values in both a positive and negative manner. A positive example was noted several years ago

during a plant safety survey. Management in a shipping department was asked whether employees wore safety shoes. The answer was, "Yes, everyone in the department wears safety shoes." When asked how this was accomplished, it was explained that a well-respected employee (leader) had convinced others to wear them.

• Espoused Values. These may not be the actual values within a company. Schein notes that espoused values "predict well enough what people will say in a variety of situations but which may be out of line with what they will actually do in situations where those values should, in fact, be operating." These values can be described as "motherhood and apple pie" because they evoke little controversy. In short, espoused values are what a group or organization would like actual or basic values to be.

• Basic Values. These are broadly held by members of a group (e.g., plant, department or company). Basic values guide the personal behavior of individual group members and influence their decisions regarding safety. Where safety is a basic value, workers understand what is expected of them and spend little time deciding whether they should perform safely.

One can best determine whether safety is an espoused or basic value through observation. For example, if safety is declared to be a basic value, yet employees frequently violate established safe practices in the presence of management, safety is in fact simply an espoused value. Basic safety values need not be formally identified and documented. However, no company can achieve world-class safety results unless such values are in place.

HOW SAFETY BECOMES A BASIC VALUE

A recent Industrial Safety & Hygiene *News* white paper survey revealed that the most popular strategy for gaining management support is compliance requirements (Johnson 27). This finding suggests that safety is not a basic value in many companies today. It also raises the question, "How can safety become a basic value?" Concern for the individual as well as real or perceived economic issues associated with losses can be driving forces in that process. This can occur in several ways.

Accident Experience

DuPont and Union Carbide are notable examples of accident experience affecting the deepest levels of safety culture. Main notes that DuPont's dedication to safety can be traced to the 19th century, when its principal product was gunpowder. Explosions at the Brandywine Creek gunpowder operation killed two members of the DuPont family as well as several employees (68). To this day, safety is a basic value at DuPont.

Union Carbide is a more recent example. In December 1984, more than 2,000 people died following a release of methyl isocyanate from its facility in Bhophal, India. This accident was a driving force behind OSHA's efforts to develop the Process Safety Management Standard (29 CFR 1910.119). It also prompted Union Carbide to implement an audit system designed to prevent recurrence; integrate safety into the business strategy; and improve the reporting relationships between safety personnel and top executives. Today, any site that receives a "requires substantial improvement" notation in an audit must explain the deficiencies directly to the board of directors and develop a corrective action plan.

Hazard Perception

Perceived hazards also play an important role in establishing safety values. If a group believes job hazards are not significant and actual injury experience is not "out-of-line" with the rest of the organization, group members are less likely to develop safety as a basic value. Unfortunately, it can be difficult to motivate groups in this category to take proactive steps for safety.

In contrast, groups that believe real hazards exist are more likely to hold safety as a basic value. These groups often manage safety more rigorously and can be characterized as proactive. The perception that hazards continue to exist also helps sustain basic values developed as a result of accident experience. In the author's experience, departments and plants with high-hazard operations typically place a higher value on safe operation and experience fewer injuries.

Leader Initiated

According to Schein, "If a manager [leader] convinces a group to act on his/her belief and if the solution works and if the group has a shared perception of that success, then the perceived value that (fill in the blank) is 'good' gradually starts a process of cognitive transforma-

tion and ultimately into a shared assumption [basic value], if action based on it continues to be successful" (19).

Applied to safety, a belief that a certain action will provide a positive linkage between safety efforts and the bottom line can initiate a process that will cause safety to become a basic value. For example, if a valid, reliable, practical system to measure before-the-fact safety performance were available, it would provide a fair means to hold managers accountable for injury experience and associated costs that can affect the company's bottom line and, ultimately, its values.

WHY SAFETY IS NOT A BASIC VALUE IN SOME GOOD COMPANIES

In the author's opinion, the problem most often lies within the system used to measure safety performance. Historically, injury experience has been the prime measure of safety performance, with the most-popular measures being the disabling injury frequency rate (ANSI Z16.1); OSHA incidence rate of recordable injuries and illnesses (ANSI Z16.4); and days without a lost-workday injury.

The failure of these traditional measures can be seen in many ways-most notably in their use to measure management's contribution to safety performance. Rarely does good after-the-fact safety performance play a significant role in the management reward system (although, on occasion, poor after-thefact performance is punished).

In the author's opinion, this is largely due to the recognition (conscious or subconscious) by management that accident seriousness is chance-related; this perception has created distrust of traditional measurement systems. Real or perceived control over events determines whether management elects to expend effort. If experience tells a manager that effort in safety provides no commensurate results, s/he is likely to expend effort in areas where the "lines are more clearly drawn."

In "Why 'Good' Managers Make Bad Ethical Decisions," Gellerman warns against the use of results alone to evaluate management performance. "It is not difficult to look remarkably good in the short run by avoiding things that pay off only in the long run. Since this is not necessarily a just world, the problems that such people create are not always traced back to them." He concludes, "Companies must be concerned with more than just results.

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They have to look very hard at how results are obtained" (89).

This observation is certainly true when evaluating management's safety performance based solely on after-the-fact measures. It is much easier to use short-term "attention grabbers" such as safety contests, promotions and gimmicks to "manage" safety than to implement system improvements that change behaviors and produce long-term improvements.

Although many safety professionals recognize the problems associated with these and other after-the-fact measures, their efforts to wean organizations from them often fail. In "What Measures Should We Use and Why?" Petersen discusses the problems associated with these measures (37-40). Many safety professionals have attempted to report the cost of accidents in order to gain management support for a more proactive approach to safety. This strategy has met with varying degrees of success, however, due to the difficulty of demonstrating that advertised costs actually exist.

MAKING SAFETY A BASIC VALUE

Preventing employee injuries is simply good business—a premise supported by a review of principles from major companies. One generally finds statements such as "respect for the individual" or similar declarations that address employee well-being. In The Practice of Management, Drucker notes that "the guiding principle of business economics ... is not the maximization of profits; it is the avoidance of loss" (47).

Loss associated with accidents and undesirable publicity surrounding such events can affect a company's bottom line and label it as an undesirable place to work; this latter development is of particular concern in a tight labor market. The real problem in such environments is lack of vision and leadership.

Leading a Vision

An effective leader effects change by creating dissatisfaction with the status quo. A positive way to achieve this is through education and by concurrently providing a practical first step toward a better system. In discussing how leaders create organizational cultures, Schein identifies three sources from which cultures develop; the last two are "learning experiences of group members as their organization evolves, and new beliefs,

values and assumptions brought in by new members and leaders" (211). Both factors were involved in the change initiated some 20 years ago by the corporate health and safety department at Procter & Gamble (P&G).

The group started a change process that greatly reduced injuries and ultimately made safety a basic value. The initial vehicle was a one-day seminar directed at site management leadership and ultimately extended to upper levels of operating management as well as to site employees. Since the concepts were new, a willing "guinea pig" was needed. The site selected was dissatisfied with its injury experience and had expressed interest in improving.

At the time, most site safety programs focused on improving employee attitudes. Many believed that safety had to be fun in order to hold employee interest; as a result, safety contests, promotions and gimmicks were common. The seminar advocated a holistic approach to behavioral safety, with the primary focus on site management. Presenters emphasized the fact that a safety program can be broadly divided into activities directed at attitude versus those directed at behaviors.

For many attendees, the "eye opener" was recognition that activities which most directly relate to behavior are the most effective. This discovery caused managers to shift from attitude-oriented activities to ones that are behavioral and manageable in nature. Many said that this approach "made sense" and was being presented "the way it really is for the first time."

A Before-The-Fact Measurement System

Several years after the behavioral approach was introduced, a series of events led to dissatisfaction with the corporate site safety surveys. At issue was a lack of understanding regarding how sites were being evaluated.

This discord provided an opportunity to implement a vision that would greatly improve management accountability for conducting proactive safety programs and provide a reliable link between safety efforts and hard-number results. It involved redefining the scope and content of the organization's safety and health system and how site safety performance would be evaluated.

Key to successful introduction of the system was site involvement during the development process. As the corporate

group identified and documented key safety criteria, select sites reviewed and commented on drafts. After several iterations, a final product was introduced to sites worldwide.

Because behavioral concepts were understood and accepted, the "condition" bias found in many safety systems was avoided. Many safety regulations are condition-oriented, so it is not surprising that most safety systems reflect this bias. However, the work of Heinrich and others suggests that safety is primarily a behavioral problem (21). Therefore, any safety system must be designed with a behavioral bias if it is expected to correlate with injury and illness experience.

The revamped system consisted of nine elements:

- 1) expectations and involvement;
- 2) goalsetting and action planning;
- 3) standards implementation;
- 4) safe practices;
- 5) planning for safe conditions;
- 6) site training systems;
- 7) behavior observation systems;
- 8) behavior feedback;
- 9) performance tracking.

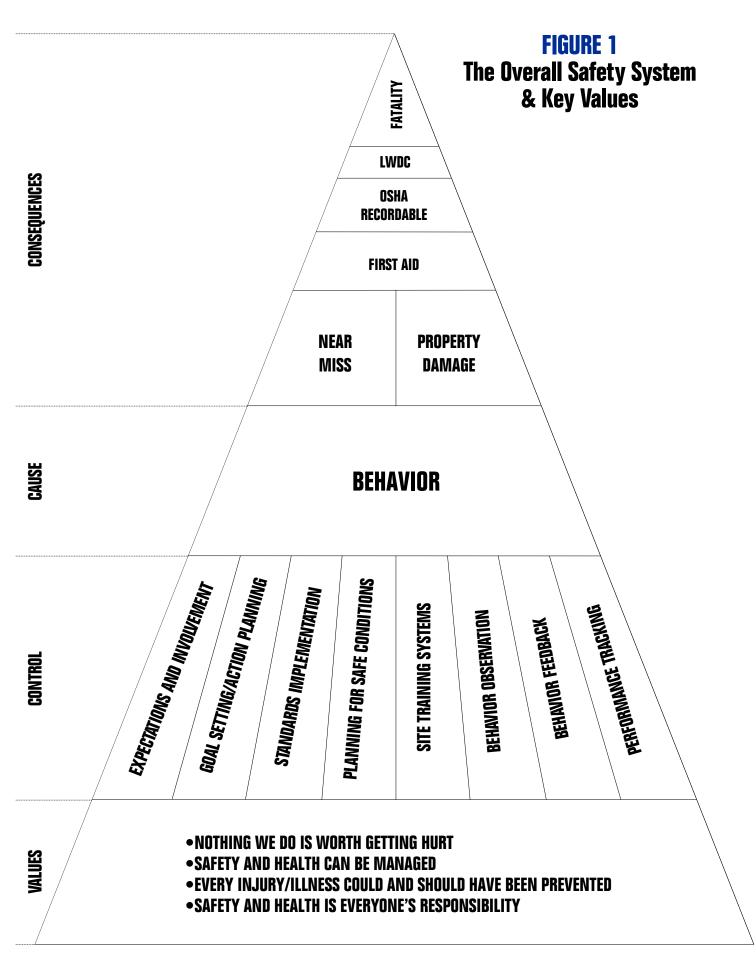
Standards implementation includes applicable OSHA standards as well as company standards. Planning for safe conditions includes equipment and workplace inspections as well as safety in design and installation. The other seven elements deal with behavior—of both management and non-management personnel. Specifics for each element were described in a 22-page document.

A numerical means of rating each key element was also developed. To ensure that the measurement tool was flexible, easy to understand and practical to use, a one-page rating guide was developed. A scale of 0 to 10 was used, with 0 meaning nothing has been done to implement the particular element and 10 meaning the element was fully implemented, effective and sustained for a specified period of time—in other words, a model system.

EDUCATING THE ORGANIZATION

Corporate safety training efforts began to focus on the nine elements. A formal training and qualification program that reinforced these elements was developed for site health and safety managers.

A three-day training program was also developed for non-management personnel in safety leadership roles. Computerbased training provided an effective



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means of training employees throughout the worldwide organization and enabled each trainee's coach to quickly monitor

In addition, the corporate safety department developed a visual representation of the overall safety system, with values shown as its base (Figure 1). Four values were identified.

- 1) Nothing we do is worth getting hurt.
- 2) Safety and health can be managed.
- 3) Every illness and/or injury could and should have been prevented.
- 4) Safety/health performance is everyone's responsibility.

This model was easily understood and was frequently posted on bulletin boards. It was so well received that other areas of the business adapted it to fit their particular needs as well.

When first introduced, these values could be best described as espoused values. Over time, however, they became the organization's basic values, as several external sources attest.

In What America Does Right, Waterman referred to the first value. After visiting P&G's Lima, OH, plant, he noted this value is a "fundamental belief in P&G manufacturing" and that "this philosophy and concern goes a long way toward explaining the Downy process department's record of four years production without a single OSHA recordable injury" (48). U.S. Commerce Secretary Ron Brown offered this comment after visiting a P&G plant in Guangzhou, China. "They have the same business practices. They have the same health and safety rules. They have the same training for their workers. This is exactly the kind of example that we're looking for" (Harrington 8).

MEASURING PERFORMANCE

Corporate and business sector surveys began utilizing the nine key elements to evaluate site safety programs. Long-term success of a measurement system that contains soft criteria such as "expectations and involvement" requires calibrated surveyors. Various means were used to ensure calibration.

One effective method was to periodically have a group of surveyors conduct a training survey at a given plant. Each group member recorded ratings based on his/her observations, then shared those ratings with the group. If a trained surveyor evaluated the nine elements and did not vary more than plus or minus one point from the expert, s/he was considered "calibrated." These ratings and reports identified those areas where the organization should focus its resources in order to improve the system and hardnumber results.

The following example illustrates the effectiveness of key elements in troubleshooting. A European plant had low key element ratings, but also a low injury and illness experience. The surveyor was unable to pinpoint a reason for this anomaly, although injury underreporting was suspected.

At the beginning of the next site survey, injury and illness records were thoroughly reviewed. Results confirmed the suspicion—the problem was injury and illness recordkeeping. Once corrected, the key element rating correlated with injury and illness experience.

VALIDATING THE APPROACH

After several years, a study was conducted to determine whether a correlation existed between site survey ratings and injury and illness experience. The findings shown in Figure 2 (pg. 38) validated the approach. When a facility's overall key element rating was low, injury experience was high; when key element rating was high, injury experience was low. For those involved, this proved to the organization that safety could be managed just as any other area of the business. As a result, the correctness of the approach became a shared belief throughout the company.

This belief ultimately led to the establishment of worldwide key element ratings and injury and illness experience goals—a step that would not have been possible had the second value ("safety and health can be managed") not been firmly in place. To be sustainable, not only must this value be believed, it must also be validated through ongoing experience. Sites now conduct their own keyelements surveys in years when not surveyed by corporate personnel.

In addition, the corporate safety group modified the system used to track site safety performance. A site's key element internal and external ratings, along with dates they were assigned, are now placed alongside OSHA total incidence rates. This enables all sites to see how they compare with other locations. This change provided a visible shift in how safety performance is measured.

HOW TO RECOGNIZE WHEN SAFETY IS A BASIC VALUE

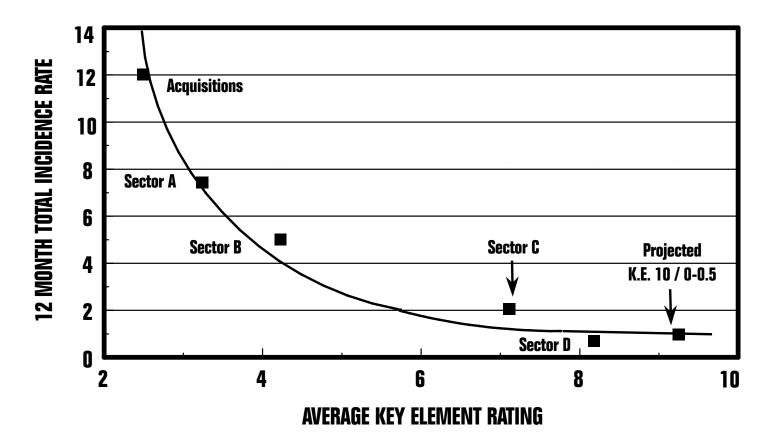
Management pays attention to what is valued. By identifying those elements that are measured, regularly tracked, reported on and proactively managed, one will understand what is valued. Observing management behavior in the work area can often provide insight regarding what is valued.

What does a manager see and what actions does s/he take when touring an operating department? For example, did he take immediate action in response to production-related problems? Does she immediately address a packing line jam? Does the manager take note of safety behaviors or must specific behaviors be pointed out to him? If she recognizes a violation of an established safe practice, is it addressed immediately, at a later time or ignored? Such behaviors reflect what the manager values; if this is not an isolated case, such behaviors reflect what the organization values as well.

Organizations in which safety is a basic value exhibit four key characteristics.

- •Safety is "proactive." Safety efforts are planned and focus on behavior and system improvements. All concerned recognize that safety training must go beyond regulatory requirements—that it must focus on the system. Safe practices are developed based on a thorough evaluation of hazards inherent in the work environment and safeguards are developed before accidents occur. Safety goals and action plans developed at both plant and department levels focus on system improvement. Injury and illness reduction goals are supported by clear objectives, strategies and measures. Accountability for goal completion is established for various levels, and periodic progress reports are issued.
- •All levels are held accountable for results and how they are obtained. Safety responsibilities at all levels are defined and understood. Safety goals established at plant and department levels address system improvements and target injury reduction. Goal progress is tracked. Plant management leads safety efforts by managing safety elements each day, just as they manage production, cost or quality.
- •Safety is given equal weight when making economic decisions. Safety is recognized as a solid contributor to the "value chain" that affects the company's competitive advantage. Decisions that

FIGURE 2 Key Element Ratings vs. Total Incident Rate



require expenditures reflect that belief as well. The organization provides the necessary resources, people, time and capital to make the system effective. Management actively seeks-and takes seriously—employee suggestions for safety improvements.

 Company safety policy is viewed as equal to other policies. For example, the way a company applies progressive discipline for policy violations can be revealing. Where safety is a basic value, infractions of safety rules are treated with the same or greater importance than violations in other policy areas. This can often be tested by observing safety behavior in the work environment, counting and comparing safety discipline cases with those in other policy areas.

The transition from a poorly defined safety program that was evaluated based on traditional, after-the-fact measures of safety performance, to one that utilizes system measures as the prime measure of safety performance does not occur overnight. Nor is the transition from safety as an espoused value to safety as a basic value immediate.

In P&G's case, the process took considerable effort by corporate and business-sector health and safety personnel, as well as plant personnel. However, the return—reduced injuries and illnesses as well as recognition that safety contributes

to the bottom line—was evident in a corresponding reduction in workers' compensation (WC) and associated costs. In eight manufacturing sites (in one business sector), WC savings were almost \$22 million dollars. In addition, the new approach is better aligned with the company's basic mission and is truly a competitive advantage. ■

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