SAFETY MANAGEMENT

TREATING SAFETY AS A

By DOMINIC COOPER

afety is a value. This phrase is being bandied about more and more. Although the notion that safety is a value is a good one, what exactly is meant by values? Values have been defined as "a constant set of core beliefs held by an individual concerning how s/he should behave over a broad range of situations" that develop through the socialization process experienced during life (Ravlin 598).

To paraphrase, this means that a value is a deeply held belief which is beyond compromise, initially learned from others, but reinforced by one's own experiences. From such values individual attitudes and opinions are formed, which in turn direct one's behavior. Since good safety attitudes and safe behavior are vital to successful safety programs, it makes sense to seriously examine the proposition that safety should be treated as a value that is never compromised.

APPLYING THE VALUE CONCEPT TO SAFETY

The concept of safety as a value can simply be viewed as an ethic that guides the way an individual views safety and safety-related behavior-be it at work, in public or at home. This ethic dictates behavior in the same way as other ethics (e.g., those who believe in ethical investments do not buy shares in companies that use child labor). In the workplace, it means that safety is not simply viewed as a top priority on par with productivity; rather, it is an ethic that guides everything employees do-safety is never compromised.

In Sweden, this concept is being translated into action. In the belief that all road traffic accidents are preventable, the country is spending vast resources to change roadways so that people are forced to drive more safely (i.e., change the situation in order to change behavior-see Cooper 1998). For example, roads at bus stops are being narrowed so that cars cannot pass a bus that is stopped to pick-up or drop-off passengers. Such action implies that as a nation, Sweden believes just one death on the road is too many.

In many situations, taking a morerelaxed viewpoint has enormous practical implications. For example, in the U.K., aiming for a 99.9-percent success rate would mean accepting that each day:

- 10 trains would crash on the rail net-
- •15 babies would be dropped on the floor at birth;
- •125 surgical operations would go
- •27 people would be wrongly prescribed dangerous drugs;
- 72,000 checks would be deducted from the wrong bank accounts;

- *88 missed heartbeats would be experienced by each citizen;
- •96,000 items of mail would be lost by the Royal Mail;
- ·hundreds of people would be injured

These statistics support the goal of aiming for zero incidents rather than accepting 99.9 percent. The two fundamental underlying philosophies of treating safety as a value are 1) aiming for zero incidents and 2) actively caring for others.

WILL CURRENT SAFETY INITIATIVES LEAD TO ZERO INCIDENTS?

Many safety efforts focus on developing rules and procedures; providing safety training; posting safety signs and posters; conducting weekly inspections; and developing themed campaigns. Some forward-thinking companies try to involve the workforce, but many rely solely on line management to ensure compliance.

When incidents occur, many employers cite the involved employee's unsafe behavior, poor attitude or laziness. Although these factors may, on occasion, be involved, in most cases, an employee's perceptions of the work environment, combined with his/her safety values, will dictate actual behavior

This places the onus on a company to ensure that its stated safety values are translated into action. This is rarely the

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case, however Management often ignores rules and procedures, provides poor training and supervision, fails to provide proper tools and equipment, and overlooks the need for preventive maintenance. By staying this course—doing the same things over and over again—a company's safety performance will remain static.

Many facilities have gone some time be it days, months or years—without an injury incident. If it is possible to achieve zero injuries for some period, one can argue that it is possible to achieve this level of performance all the time. It has been said, "A company gets the level of safety performance it deserves" (Du-Pont). This simple, yet insightful phrase reinforces the view that adopting safety as a value may be an effective way to improve safety performance Furthermore, it will help to bring about the safety culture "product," which is "that observable degree of effort to which all organization members direct their attention and action toward improving safety on a daily basis" (Health & Safety Commission; Cooper 111+).

LEADERSHIP IS THE KEY

So, how does safety become a value? Two key factors are involved: 1) a value is learned from others; and 2) everyday experiences will either reinforce or weaken the strength of the value in forming attitudes, opinions and behavior.

Thus, values cannot be instilled solely by prescriptive methods. It requires more than merely telling employees, "You will treat safety as a value." It requires consistent, demonstrable safety leadership whereby the entire management structure proactively and visibly shows its leadership of-and commitment tosafety on a daily basis.

This begins with the company's mostsenior managers outlining the "safety is a value" ethos to employees via a clear, compelling, genuine vision that actually guides people's safety behavior. For example, "We will do our work without an injury. It is our belief that all injuries can be prevented. If an injury does occur, it will be viewed as unacceptable management performance. We will be personally involved in determining why and how management failed. We are committed to zero injury. We expect complete dedication to the elimination of unsafe practices and unsafe conditions by all employees-management and employees alike—regardless of any other factor" (Nelson 42). Such a vision specifies the company's objective, safety standards and required action

SELL THE VISION

People often emulate the behavior and espoused philosophies of those they respect. The more such behavior is reinforced by their experiences, the more habitual it becomes—and the more the philosophies evolve into deeply held values. Because senior managers are a company's most-highly regarded people, they must actively demonstrate that safety is a value if others are to embrace safety as a value. To achieve this, senior managers in particular must commit to the vision and spread it throughout their sphere of operations; they must "walk the talk" and lead by example (e.g., by identifying-and immediately rectifying—an unsafe condition or practice). Such actions reflect management commitment and dispel perceptions that the company merely pays lip-service to safety. As a result, employees believe that safety is taken seriously and will follow suit.

Achieving this requires a time commitment from senior management. For example, in one U.K. chemical company, the senior management team scheduled one hour per day (when they were onsite) over a 12-month period to visit operational areas. This soon became the normal way of doing things; the company has since achieved a zero lost-time accident rate (as calculated by OSHA standards of one day lost).

INTRODUCE RESPONSIBILITY & ACCOUNTABILITY FOR SAFETY

Senior managers must also take personal responsibility for bringing the vision to fruition—and be held accountable for doing so. This responsibility and accountability should cascade throughout the line-management structure.

Measurable accountabilities should define those aspects of a task that contribute to its achievement (Armstrong 49). For example, one U.K. offshore operating company reinforces accountability with this statement from the CEO: "Poor safety performance in your sphere of control is a career-limiting step." Safety performance data is shared with the board of directors on a monthly basis. In several cases, line managers have been passed over for promotions or asked to leave the company due to poor safety performance.

FOCUS ON SUCCESS, NOT FAILURE

Achieving success rather than avoiding failure motivates people (Atkınson). Thus, senior managers should stop measuring failure as the primary means of controlling safety—in other words, they should no longer rely on lost-time accident or recordable injury statistics as the primary outcome measure of safety performance. Such statistics are collected primarily to ensure compliance, not to truly measure a firm's safety performance.

Instead, a company should focus on the success of its proactive measures. Some might argue with this proposition,

but let's assess the evidence. Many companies are concerned about their accident performance. In the author's opinion, some will even go so far as to "massage" the statistics. For example, a contractor's accident is not counted in a company's statistics, even though the incident occurred on company premises, simply because s/he is employed by someone else. Or, an accident is not deemed to be a lost-time accident because by the time the employee returns following a 10-day break, s/he has recovered.

In other cases, an injured person may be placed in a restricted-duty program in order to minimize the number of days lost due to an accident. (It should be noted, however, that evidence suggests light-duty programs help injured employees recover more rapidly.) Or, employees may hesitate to report accidents because it will reflect badly on them or their workgroup; in some cases, it may cause loss of an incentive. According to the U.K. Health and Safety Executive (HSE), underreporting of accidents is nearly 50 percent (HSE 1993). Such practices suggest that safety is a form of punishment, while disguising the true accident rate and thereby distorting subsequent safety decision-making.

Various proactive measures can be used to assess a firm's safety performance. Used correctly, these will actually cause employees to actively embrace safety as a value. Examples include:

- number of weekly safety inspections; number of safety management system audits conducted;
 - number of audit topics examined;
- number of personnel who received safety training;
- number of personnel who received refresher training;
- number of risk assessments conducted and reviewed;
- number of standard operating procedures reviewed;
- number of corrective actions completed on the shop floor;
 - number of near-misses reported;
- number of safety-related suggestions

Using such proactive measures, one may compute a company-wide composite safety index score that indicates an organization's actual level of safety performance—rather than one based solely on accident frequency. All that is required is the use of a common metric across the measures (e.g., percentage scores). It also provides senior management with information about what is being done, not what has been avoided.

The composite index can be used in two ways: 1) All information can be included to provide the company with an index of its overall level of safety performance on a monthly, quarterly and annual basis. 2) It allows the company to examine the relationship between various safety performance indicators and accidents/near-misses. That is, are safety performance composite index scores increasing while accident frequency rates are decreasing? Using multiple regression statistical techniques would also allow the company to assess which initiatives have had the greatest impact on current safety performance.

REVISIT REINFORCERS & REWARDS FOR SAFETY

An organization will only achieve desired performance outcomes if it remforces and rewards desired performance inputs. For example, if a company's reward systems are geared toward production quantity, it will get production quantity; if geared to production quality, it will get production quality.

On this basis, incentives have been used to motivate and reward people for good safety performance. Advocates suggest that this approach focuses attention on areas of concern, promotes safety awareness and provides recognition for good performance.

Often, however, the positive effects are short-lived. Incentive programs have been found to promote under-reporting of incidents. They can also promote the "numbers game" because incentives are typically received for lower accident rates. As a result, the accident rate itself becomes the end of the safety journey, rather than the means to an end; eventually, bonuses become an integral part of employee compensation, as they tend to be given regardless of the actual level of safety performance. When the bonuses are not received, employees become resentful, feeling they have lost part of their (perceived) salary.

Perhaps the most-fundamental problem with traditional incentive programs is that they focus on outcomes (e.g., no accidents) rather than behaviors required to achieve those outcomes (Robertson and Cooper 227). If people engage in desired behaviors, desired outcomes will be achieved. Since behavior is maintained by consequences received, it seems logical to reward people for engaging in desired behaviors.

For example, a workgroup could earn a credit for each near-miss reported. For every 10 credits received, one merit is earned. After collecting 10 merits, the workgroup could receive a tangible reward (such as dinner). Within this system, a group would need to report 100 near-misses to receive the reward.

Such information provides the company with learning opportunities it might not otherwise have obtained and eliminates the potential for incidents (provided problems are addressed) before employees receive a reward. Again, since changing

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behavior subsequently changes attitudes, this also helps workers embrace safety as a value, as they must engage in safetyrelated activities in order to receive appropriate rewards (Cooper and Phillips).

ALIGN POLICIES & PRACTICES WITH THE SAFETY VISION

Senior management must also ensure that company policies and practices are aligned with the overall safety objectives. This process should begin within the procurement and human resources departments. Utilizing applied behavior analyses to investigate incidents, experience has shown that procurement activities are involved in 40 percent of all incidents (e.g., purchasing inadequate equipment for the job), as is human $\frac{1}{2}$ resources (e.g., lack of training; poor personnel selection and job placement).

Both of these are non-safety systems, which further illustrates the relationship between general management systems and safety. Surprisingly, the safety profession is also implicated in 20 percent of incidents, largely due to ignoring—or not being aware of-what is occuring in operational areas (Cooper, et al).

GOOD MANAGEMENT IS THE KEY

Distinctly different from safety leadership, safety management entails the practical implementation of the espoused vision At the middle-management level, the vision should continually be advocated at all meetings and training events; it should top the agenda of each meetingwith no other topics discussed until safety issues have been addressed.

Middle managers must also "sell" the vision to new hires and/or contractors. They must develop appropriate information to publicize successes and failures, and share lessons learned. They should engage people in conversations about safety at every opportunity. For example, while in the course of normal duties, a manager should ask, "What can be done to prevent the next injury in this area?" If something is identified, s/he must address it quickly and monitor the status of remedial action.

MAINTAIN A PROACTIVE FOCUS ON SAFETY AT THE OPERATIONAL LEVEL

According to HSE, poor management control is a primary cause of accidents (HSE 1988). Thus, at the operational level, front-line managers must not ignore

unsafe practices or conditions, as this implies the organization does not truly value safety.

In principle, these managers should be encouraged to correct all unsafe acts observed; identify unsafe conditions; discuss safety with the workgroup each day; monitor outstanding remedial actions; seek advice from safety personnel as needed; conduct toolbox talks, safety training and risk assessments; provide feedback on safety to the workgroup, lead safety meetings; and conduct positive audits during which they actively seek to acknowledge people performing safely (something rarely done)

ACTIVELY CARING: KEY TO EMPLOYEE OWNERSHIP

How others approach people also affects their subsequent behavior and values Top-down edicts that demand compliance simply will not work, much like telling people to act safely does not work. The primary goal is to change behavior a change that must originate within workers themselves.

For this to occur, management must "actively care" about employee safety and well being (Geller). In turn, employees will demonstrate caring behavior toward colleagues. As a result, the "safety is a value" ethos will become deeply embedded within the company's culture; unsafe behavior and conditions will diminish; and the zero injury goal will be achieved. To ensure success in this area, management must strive to ensure that employees receive positive consequences as the result of any caring effort.

Building Relationships

Paying attention is one of the first steps in developing an atmosphere of trust; this entails building meaningful relationships between management and employees. Because actions speak louder than words, management must do more than simply espouse the importance of safety; it must respond to employee safety concerns. Actively caring requires a consistent effort by all levels of management that is aligned with the company's safety vision.

Self Esteem

Managers and employees must have mutual respect. This is essential because how people feel about themselves (or are made to feel) determines how they feel about and interact with others. If an

employee is made to feel humiliated about his/her safety behavior, this employee is less likely to help co-workers and will likely not cooperate in other areas. Conversely, if someone feels good about him/herself, then s/he will likely help others.

Practical examples of showing respect include listening to others and addressing their concerns, and communicating why a concern cannot be addressed at that time. Similarly, thanking an employee for his/her efforts not only shows respect, it also increases the likelihood of repeated positive behavior.

Sense of Belonging

Research has shown that people who feel a sense of belonging to a particular social group are more likely to look out for and help others (Georgiades and Orlans). The sense of belonging within a particular workgroup can be enhanced via team-building exercises, group goalsetting and feedback, and group celebrations of success.

Group goalsetting requires consensual decision-making, whereby both management and employees are involved. Behavioral safety research has found that joint or participative goalsetting increases levels of observed safety performance as compared to simply telling workgroups what their safety improvement targets are (Duff, et al). In other words, the more involved people are in the decision-making process, the more committed they will be to achieving the goals that are set. In turn, this builds feelings of belonging, which increases the level of actively caring behaviors

Empowerment

When employees have the autonomy and authority to identify a problem and take responsibility for enacting the appropriate solution, they believe they can make a difference (Cotton). This further enhances feelings of belonging, which increases the likelihood that people will actively care for colleagues (Glendon and McKenna).

In the author's experience, one effective mode of empowerment for workplace safety is to allow employees to implement and administer a behavioral safety system (with management's support). As noted, zero injury safety performance cannot be achieved solely via a top-down safety management approach, nor can it be achieved solely through employee-driven efforts. Management and employees must manage safety together. Providing a formal mechanism, such as a behavioral safety system, not only provides the vehicle for people to actively care for each other, it also dramatically reduces the number of injury incidents and enhances operational performance (Cooper, et al 219+).

PERFORMANCE MEASUREMENT PUTTING THE CONCEPT INTO PRACTICE

Since "what gets measured and rewarded gets done well," performance measurement is the key to improving any activity (Hansen 37+). In this context, the mostpowerful and useful performance measure is one that focuses on actual safety-related behavior because such behavior is the overt, observable expression of a person's values and belief systems.

The frequency of any behavior can easily be measured at any time. One need only identify a specific behavior (or set of behaviors) to monitor that will exert the most impact on a problem. Such measures are common to all behavioral safety systems, although usually directed largely at employee behavior.

Employee Performance Measurement

Most behavioral safety systems include a peer-to-peer observation and feedback process. For example, in some systems, employees are empowered to identify safety behaviors involved in incidents recorded over a given period of time. Observers are then trained to monitor coworkers' safety behavior and provide feedback about their performance (Cooper 18+). This process enables workgroups to identify problems that trigger unsafe behaviors and implement corrective action. Numerous case studies support the power of this process to reduce incidents (Sulzer-Azaroff and Austin 19+).

Management Performance Measurement

Similar behavioral measures can be developed to assess management's safety-related behaviors. These should be developed in conjunction with managers and senior managers to ensure that the behavior index reflects their typical safety-related activities. Through this process, managers develop ownership of the index and become committed to completing it on a weekly basis.

In principle, managers should selfmonitor themselves on a weekly basis because 1) people automatically change their value, belief and attitude systems to match those behaviors in which they engage to avoid internal psychological tensions ("cognitive dissonance"); and 2) what gets measured and reinforced gets done well. Thus, requiring management to complete the index each week again demonstrates the importance of safety. In turn, this positively impacts employee behavior and their values toward safety.

Over time, a firm can begin to evaluate what is actually being done on a regular basis. For example, a company may find that managers deliver toolbox talks and correct unsafe acts, yet do not monitor and ensure timely completion of remedial actions. Targets could then be set to ensure that this activity becomes the norm.

CONCLUSION

The "safety is a value" ethos is founded on the fundamental philosophy that all injuries are preventable and that the goal of zero injuries can be achieved. To introduce this concept to a workplace, company leaders must develop a vision and commit to it. This commitment must then be cascaded down through the management structure.

Senior managers must ensure that all employees are held responsible and accountable for safety within their sphere of operations. In addition, they must strive to develop proactive measures of success (rather than measure failure). The organization's reward system must be revisited to ensure that safety-related behavior—not the outcomes of such behavior—is acknowledged.

Both managers and employees must take a proactive approach to safety and show that they truly care about co-workers. Furthermore, both management and employee safety-related behavior must be measured to ensure that the "safety is a value" ethos is put into practice. The reward of zero injuries over the long term will make the effort worthwhile—in both financial and human terms.

REFERENCES

Armstrong, M. Performance Management. London: Kogan Page, 1994.

Atkinson, J.W. Personality, Motivation and Action New York: Praeger, 1983.

Cooper, JO., et al Applied Behavior Analysis. Columbus, OH Merrill Publishing Co., 1987.

Cooper, M.D. "Implementing the Behavior-Based Approach to Safety: A Practical Guide." The Safety & Health Practitioner. 12(1994): 18-23.

Cooper, M.D. Improving Safety Culture. A Practical Guide Chichester: John Wiley &

Cooper, M.D. "Towards a Model of Safety Culture." Safety Science 36(2000): 111-136.

Cooper, M.D. and R.A. Phillips. "Validation of a Safety Climate Measure." Presentation at Occupational Psychology Conference of the British Psychological Society, Jan. 3-5. 1994, Birmingham.

Cooper, M D., et al. "Reducing Accidents Using Goal Setting and Feedback: A Field Study." Journal of Occupational and Organizational Psychology 67(1994). 219-240.

Cotton, J.L. Employee Involvement Methods for Improving Performance and Work Attitudes.

Thousand Oaks, CA: Sage Publications,

Duff, A.R, et al. "Improving Safety On Construction Sites By Changing Personnel Behavior." HMSO Report Series CRR51/93. London: HSMO, 1993.

DuPont. "Safety Training Observation Program "Wilmington, DE: E.I duPont de Nemours & Co., 1992.

Geller, F.S. The Psychology of Safety: How to Improve Behaviors and Attitudes on the Job. Radnor, PA: Chilton Book Co., 1996.

Georgiades, N.J. and V Orlans "The Supervision of Working Groups." In Social Skills and Work, M. Argyle, ed. London: Methuen, 1981.

Glendon, A.J and E.F McKenna. Human Safety & Risk Management. London: Chapman

Hansen, L. "Rate Your B.O.S.S.: Benchmarking Organizational Safety Strategy." Professional Safety. June 1994: 37-43

Health & Safety Commission. "ACSNI Study Group On Human Factors Third Report. Organizing For Safety." Sudbury, England: HSE Books, 1993.

Health and Safety Executive (HSE) Blackspot Construction. Sudbury, England: HSE Books, 1988.

HSF. The Cost of Accidents At Work. Sudbury, England: HSE Books, 1993.

Nelson, E.J. "Safety Commitment Redefined." Professional Safety. Dec. 1998: 41-43.

Ravlin, E.C "Values" In Blackwell Encyclopedic Dictionary of Organizational Behavior, N. Nicholson, ed. Oxford, England Blackwell, 1995.

Robertson, I.T and C.L. Cooper. Human Behavior in Organizations London: Mac-Donald & Evans, 1983.

Sulzer-Azaroff, B. and J. Austin. "Does BBS Work? Behavior-Based Safety & Injury Reduction: A Survey of the Evidence. Professional Safety. July 2000: 19-24.

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