

# ONE SIZE DOESN'T FIT ALL: **CUSTOMIZING** HELPS MERGE BEHAVIORAL AND TRADITIONAL APPROACHES

By **STEVE WARD**

**A** few years ago, my employer (FMC Corp.) decided to integrate behavioral technology into its corporate safety process. Initially, those involved thought this would be a relatively simple process: Assess what approaches are available, talk to a few sources, then select a program.

Unfortunately, that approach was not sound—at least for FMC. The corporation is a diversified, worldwide manufacturing company with more than 100 facilities; employee ranks at these facilities range from 50 to 1,200 people; some sites are unionized, others are not. Clearly, no cookie-cutter approach could succeed in an organization with such diverse cultures, environments and needs.

After much investigation and discussion, it was determined that the best course of action was to use internal resources—including an experienced team of safety and health professionals—to develop a program that could be implemented and adapted in those facilities that chose to do so.

Thus began a long and interesting trip. All involved knew much work was required—and that some uncertainties would arise—but the potential rewards were worth the risks. In return for some extra effort, it was believed a world-class safety program would emerge—one that worked as well in an agricultural chemical plant in Florida as in a machinery plant in Spain.

To date, the trip has been successful. The program, called START (Safety Training and Response Techniques) has

been adopted by more than 57 FMC facilities, with approximately 8,000 employees actively involved. The company is now reassessing its strategy and addressing challenges that have arisen. By all accepted measures—including several self-created ones—START is helping employees take much better care of themselves at work.

The trip has not been without surprises, but most have been pleasant. The best has been learning how the program can be enhanced by involving employees as equal partners in managing daily safety activities; they have a tremendous amount to contribute. No safety process can truly succeed without employee buy-in, cooperation and leadership.

### **BACKGROUND**

In the early 1990s, several factors prompted FMC to re-examine its safety management process. Performance had reached a plateau; significant organizational changes had transpired; and profound changes were transforming the corporate structure and culture.

At FMC, safety management systems and core beliefs serve as the foundation for the safety management process (Figure 1). Developed in 1978, these are executed by the line organization, with support from corporate and site safety coordinators.

Over time, the company has reduced the number and layers of management and safety professionals, and fewer people now fill the line and staff organizations. These changes make it more challenging to effectively manage safety. So, the firm began to seek new ways to involve others within the organization in the safety process.

One logical starting point was the front line. This decision was in tune with the direction the company was already taking in terms of production—empowering employees to direct the work they performed. By removing some layers of supervision, more decision-making power had been turned over to employees—often through self-directed work teams and total quality management (TQM) programs.

Since nothing indicated that these concepts could not be applied to safety, the questions became “what” and “how.” What process should be used? How can partnerships be forged with employees to encourage them to actively participate in safety and take more responsibility for their own well-being?

### **SELECTION MADE: BEHAVIORAL SAFETY**

Several methods were reviewed, but the focus was eventually narrowed to behavioral safety. Many FMC plants were already using TQM strategies; given the similarities to behavioral safety, it was believed behavioral safety would be a good fit. The ultimate goal was to involve more people in the safety process and improve the focus on systems that prevent accidents and injuries.

The first step involved reviewing available information and consulting with experts in the field. Next, a prototype process was developed. The process was then presented in training groups of 20 to 40 participants at several sites. Attendees represented a broad segment of site personnel—managers, supervisors, union officials (if applicable) and line personnel.

The message was simple, yet strong:

“You are your brother’s keeper. Just like you are responsible for protecting your family, each of you is responsible for your co-workers. If someone is observed performing an unsafe behavior, you must bring it to that person’s attention, even at the risk of being rebuffed. To encourage the many safe behaviors performed each day, we must ‘close the distance,’ talk to one another and show concern.”

Training focused on key objectives designed to change FMC’s safety culture.

•**Develop informal systems.** Values, caring approach and trust (“walking the talk”). Employees were encouraged to join management as equal partners in managing safety. This included helping

site management write policies and procedures, set priorities and solve problems. Employees were also asked to take a more active role in being responsible for their safety—and that of co-workers. The message was delivered through a series of workshops and a powerful motivational presentation.

•**Superbly execute safety management systems (process elements).** It was made clear that safety management systems and engineering controls were not being abandoned in favor of a behavioral approach. Instead, the company sought to integrate behavioral concepts with traditional methods.

•**Focus on systems that prevent injuries.** Participants learned how to identify and address at-risk behaviors, as well as to encourage safe behaviors.

From the beginning, START was a voluntary process. This was done intentionally to give sites the ultimate decision on how to implement FMC’s mandatory safety management systems—via the behavioral/equal partnership or a traditional approach. Sites were also free to use other behavior-based safety management programs.

START training is delivered via four one-day training sessions, beginning with an introductory course (START I) and concluding with skill courses (START II - Phases 1-2-3). Initially, START I included a motivational component designed to deliver the message that safety is a personal issue, and that to successfully manage safety, people must work as a team. This process helped the firm lay the groundwork for success.

#### WHY BEHAVIOR?

It has been said that behavior accounts for more than 90 percent of all incidents. The theory is that if an employer can correct those factors which cause unsafe behaviors to occur, the situation that leads to an incident can be short-circuited. However, this does not mean a company can neglect traditional safety elements and engineering controls; these factors are often the cause of at-risk behaviors.

For example, the Carteret, NJ, plant regularly audits the 16 safety management systems, including traditional audits and inspections, SOPs, training and contractor safety. These are basic elements of a safety process. For behavioral concepts to work most effectively, safety management systems and engineering controls must be in place.

The behavioral triangle illustrates the relationship between injuries, behaviors and management systems, including engineering controls (Figure 2). Although most incidents and injuries are caused by repetitive at-risk behaviors, such behaviors are influenced by myriad factors—ranging from customer demands that prompt

employees to take shortcuts, to poorly designed workstations; from failure to properly implement management systems (training, accountability programs, incident investigation, inspections) to non-enforcement of safety policies.

During training, participants learn how to use tools such as safety management system audits, perception surveys, behavioral audits and antecedent-behavior-consequence (ABC) analysis to identify and solve safety problems. Sites where people learn to effectively apply these tools and skills have seen significant improvement in safety performance.

#### HOW IT WORKS

##### START I: Introductory Course

Sites learn about START during the introductory course. New behavior concepts are reviewed and participants learn how to integrate them with safety management systems. A path-forward action plan is then developed to focus on several key at-risk behaviors; include these behaviors in the site audit program; change the incident investigation procedure; evaluate implementation of the safety management systems; and develop a safety policy representative of employee values and beliefs. The following safety policy was developed by the Jacksonville, FL, plant; it was designed by the team of employees who participated in START I and reviewed with all site employees for their buy-in.

*All employees at the Jacksonville Plant are fully committed to maintaining the health and safety of one another. It is the responsibility of all employees to exercise those functions necessary to prevent accidental injury and occupational illness. To accomplish this, management with employee participation is committed to conducting an ongoing safety program. All employees are responsible for following all general job-related work practices and procedures, for immediately correcting or reporting unsafe acts or conditions to his or her supervisor and for considering the consequences of our own safety, both at work and at home. Our policy is based on the premise that “all accidents can be prevented” with the commitment of all employees.*

##### START II: Skills Courses

Most sites have completed START I training. In some cases, especially at small sites, this training has been enough to produce results. However, most sites find it necessary to complete the skills courses as well.

As with START I, participation is voluntary. Before training begins, a corporate team visits the site to design the training and implementation process. The team meets with a cross-section of employees from both management and employee ranks. In all cases, flexibility is stressed; except for the basic features and principles, each site is free to choose its own approach.

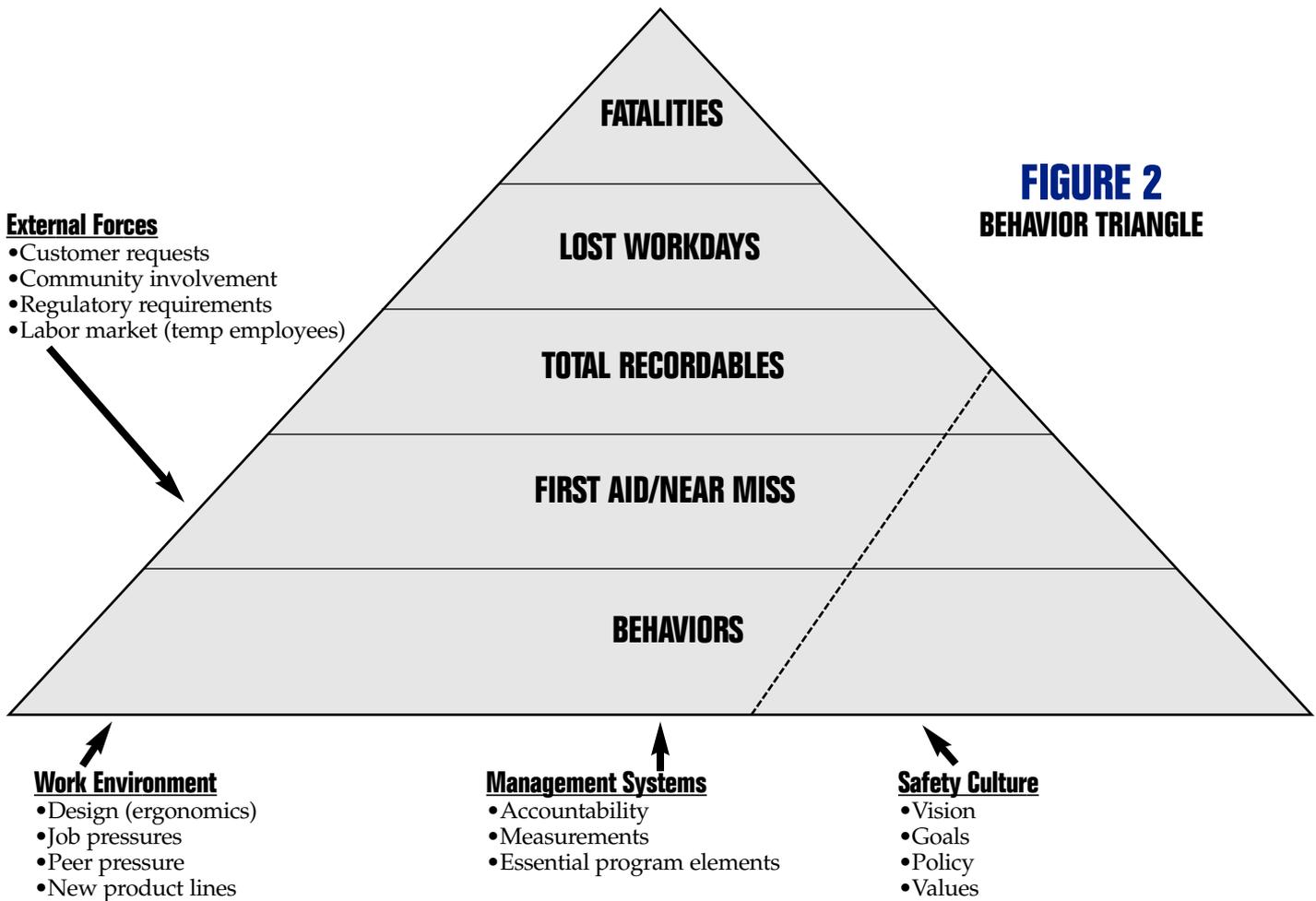
## FIGURE 1

### 16 Safety Management Systems

- 1) Statement of Safety Policy
- 2) Management Direction and Commitment
- 3) Assignment of Location Safety Coordinator
- 4) Employee Roles and Responsibilities
- 5) Hazard Control
- 6) Safety Education and Training
- 7) General Safety Communication
- 8) Safety Procedures and Rules
- 9) Audits and Inspections
- 10) Incident Investigations
- 11) Emergency Planning and Medical Programs
- 12) Behavior-Based Safety Technology
- 13) Development of an Annual Plan and Maintenance of Data
- 14) Safety Program Evaluation and Audit
- 15) Site Security
- 16) Product Stewardship/Product Safety

### 7 Core Safety Beliefs

- 1) Goal is continuous improvement.
- 2) Unsafe behaviors are the focus.
- 3) All injuries can be prevented.
- 4) Line management is responsible and accountable for safety.
- 5) Workers are involved at all levels.
- 6) Working safely is a condition of employment.
- 7) Injury prevention and efficient production are equal.



**FIGURE 2**  
**BEHAVIOR TRIANGLE**

Once key personnel buy into the process, START II begins. A team composed of a cross-section of plant personnel is formed. One of its first tasks is to compile a list of key behaviors most likely to influence or cause injury or illness. These behaviors are identified via analysis of injuries (over the previous one to three years), audits, employee observations and input, and job procedures.

This list is then reviewed with all site employees for their input and approval; it becomes the basis for the audit program. No two lists are the same. For example, Carteret, NJ, has a "safety survey" with 10 categories, while Middleport, NY, has a "behavior data sheet" with five categories. Both include key elements such as wearing PPE, using proper lifting techniques, following procedures, good housekeeping, and using proper tools and equipment. The Middleport site includes communication under procedures; Carteret places it in a separate category. Middleport uses two pages to explain the categories; Carteret covers it in small print on the back.

A perception survey is distributed to all employees to assess the effectiveness of the plant's safety culture. The survey seeks to identify which safety values and beliefs are common among management and employees—and to reveal any major differ-

ences. Questions address safety and health policy and program; employee input; availability of safety equipment; communication; recognition and rewards; supervisors' knowledge and actions; and injury reporting and investigation.

Results are analyzed by the START team (utilizing an internally developed database program), then shared with employees. Typically, the survey reveals that much needs to be accomplished to get management and employees "on the same page." Sharing this information is an effective way to open dialogue. Periodic surveys (annual or bi-annual) are used to measure progress.

The perception survey can also indicate whether management systems support unsafe behaviors; results are then used to guide the design of action plans for management. Management may say, "Safety comes first," while workers hear, "We must meet deadlines." Management must clearly demonstrate its commitment to safety—its actions must support its words.

An example of this occurred in the Homer City, PA, plant. At this site, completing orders by month's end was seen as critical. The pressure to meet deadlines was so intense that workers were rushing and taking unwarranted risks. The plant manager recognized this and instead of

the usual "Get this order out, but work safely" speech, he shut down the line, gathered everyone and said, "I don't think you understand what I've been saying. I don't care if we don't get the orders out if we can't do it safely."

Once the key behavior list has been approved, the audit program is introduced to all site employees. It is crucial that they understand audits will be performed anonymously and entail no personal evaluation or discipline.

START team representatives are trained to be skilled observers and to provide feedback. To perform an audit, two employees visit the shopfloor, select an employee and an activity, introduce themselves and spend a few minutes observing and taking notes. When finished, these observers "close the distance" with the employee and provide positive as well as negative feedback about observed behaviors.

In some cases, an employee is not aware that s/he is performing unsafely. That knowledge alone may be enough to prompt correction. Or, some discussion may occur, which results in an action item (e.g., "we need something to help lift those drums"; "these goggles fog up"). The observers submit audit forms to the committee for analysis and follow-up.

Clearly, audits are a key component of

the START process. They provide action items for the committee (e.g., price a drum lift; research goggles); supply data about the frequency of unsafe behaviors; and are the basis for START evaluations.

Workers soon grow accustomed to seeing START members on their rounds, and they rarely resent their presence. Eventually, the audit process becomes a part of daily work life. Committee members begin to make observations even when not performing an audit, while other employees become informal observers, warning a co-worker about some unsafe action. People also begin to bring safety concerns to committee members who work in their area.

Problems that do not respond to corrective action or behavioral feedback are subjected to an antecedent-behavior-consequence (ABC) analysis, which generates an action plan. In some cases, sites develop incentive programs that reinforce safe behavior.

START fosters autonomy among plant members. Corporate staff make recommendations, but the home team makes the decisions—having the final word on everything from committee size and meeting frequency, to the type of training desired. This process works so well in part because teams exercise real—not just symbolic—ownership.

#### SPREADING THE WORD

One function of any safety professional is to share expertise regarding best practices, equipment and training. One of the best sources for developing this information is plant personnel who deal with local safety problems each day.

At FMC, all involved strive to disseminate the myriad ideas developed at each site. For example, the audit part of the data analysis program was developed independently by the Prince George, BC, plant. Corporate representatives were not aware that plant personnel were developing such a system. The outcome was so impressive that the corporation reimbursed all development costs, adapted the system and distributed it to other plants.

FMC also sponsors conferences and site visits to help safety team personnel network. During these meetings, which are held several times a year, champions from the various START teams are able to exchange ideas in an informal setting. Imagine 20 to 30 people discussing their experiences—nothing compares with direct communication. As a result of these gatherings, the corporation modifies its menu of offerings and adjusts training to provide any additional skills that need to be developed.

#### MEASURING SUCCESS

Safety performance is primarily measured using traditional incidence rate mea-

surements (lost workday and recordable injury/illness case experience). Since implementation of START in 1991, lost workday injuries have dropped 57 percent and recordable injuries 64 percent. Furthermore, these improvements have been sustained despite downsizing and the acquisition of several companies that did not have positive safety cultures. Similar decreases were also seen in workers' compensation costs.

Incidence rates are not the ultimate measure of success, however. Thanks to the behavioral process, FMC has been examining ways to measure the effectiveness of prevention plans—that is, how positive is the safety culture and how well are safety management systems being implemented? Measurement tools used include perception surveys and the corporate safety management systems audit program. The firm is now attempting to correlate these measures with incidence rate performance in order to identify what actions and systems have the greatest effect on reducing injuries.

Sites that use START also use the percentage of safe versus unsafe behaviors measured during observational audits. For example, if use of eye protection increases from 50 to 90 percent, the improvement is noted. If several audits confirm that 100 percent of employees are now wearing eye protection, that behavior is removed from the audit form and another behavior of concern is added.

This is a never-ending process of continuous improvement. One safety manager involved in the program since inception has seen his site's safe versus unsafe numbers improve each year—from an average in the low 80s to more than 95 percent. But he is not satisfied. "Do you know how many thousands of unsafe behaviors are represented by that remaining five percent?" he asks.

Furthermore, success can be measured in other ways. FMC is convinced that the trust and strong spirit of partnership developed via this process have a positive effect on other areas—including production. Via this process, those involved have demonstrated how cooperation can produce positive results; this has influenced other initiatives, including self-directed work teams.

As trust and the spirit of partnership among management, supervisors and workers builds around one area, the effects spill over into other areas. One of the best places to start this process is safety. After all, it is the one area where people should share common goals and beliefs.

#### TIPS FOR SUCCESS

- Abundant information is available on behavioral safety; be prepared to learn.
- Talk to other companies that have gone through the process. Select similar

companies (preferably in the same or related industry).

- Consult with experts—and keep an open mind. Throughout, keep in mind the specific culture and setting in question—as well as its limitations. When implementation problems occur (and they will), bring experts back to help.

- Be prepared to deal with a continually changing environment. That does not mean that a site must follow changes blindly, only that the safety program must be able to adapt to an ever-evolving corporate culture.

- Ensure that management understands its role. To succeed, behavioral safety requires management's support and active leadership.

- Continually identify, recruit and train new people because original champions will eventually burn out. As necessary, identify and teach new skills to deal with persistent problems.

- Be prepared to address mistrust. It emerges whenever a labor issue arises, the workforce is reduced or a serious accident occurs. Safety should not be caught in the middle of these struggles—it is the one process on which everyone should agree and pursue the same goals. To achieve this, communicate clearly, and keep promises and commitments. In addition, never use the safety process as a punitive tool. The goal should be to correct unsafe behaviors, not to assign blame.

By maintaining trust, the safety process is not only an instrument that prevents injuries and saves lives, it strengthens the company to survive tough times. ■

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