BUILDING A POSITIVE

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"Safety culture" is defined as how safety is handled in the workplace and the overall attitude of employees toward safety. Developing a positive safety culture may seem to be an expensive endeavor. Despite the upfront cost, which fluctuates based on number of employees and the type of plant, a positive safety culture can save lives and save money over time.

While the specifics will vary, building a safety culture involves five steps. Safety managers must:

- Earn the support of upper management
- Get employees invested
- Identify hazards
- Train employees
- Track and measure progress

Become a "used car salesman" and sell a positive safety culture

Michael Coleman knows how to build a safety culture from the ground up. He began his safety career in 1992 at the Springdale, Arkansas, USA, manufacturing location of personal care product manufacturer Rockline Industries, leaving in 2009 to work at Tyson Foods.

The safety culture at Rockline didn't flourish overnight. It took Coleman six to seven years of consistently achieving the minimum required for Occu-

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pational Safety and Health Administration (OSHA) compliance based on OSHA Standard 1910 (29 CFR; http://tinyurl.com/OSHA1910)—which includes regulations regarding training, equipment use, and handling hazardous materials—before he had the data he needed to prove to management the benefits of funding a comprehensive safety program. Whereas some data came from Coleman's own work at Rockline, he also used OSHA-gathered statistics (http://tinyurl.com/OSHA-stats) and case studies from other companies with larger plants. Coleman used this information to demonstrate the benefits of a positive safety culture; to provide a detailed plan to improve the safety culture, containing estimations of possible costs and savings; to outline the goals and benchmarks; and to describe the methods to achieve those goals. Coleman presented his plan to his managers and was able to get approval for a comprehensive safety plan focused on both behavior and compliance.

"You have to become a car salesman. You have to believe in your product," Coleman said. "I taught [managers] how to sell the product, too."

As part of any plan to improve safety culture, managers must sell safety with statistics and a no-tolerance approach. Chuck Coffey, corporate director of safety for Ag Processing Inc. (AGP; Omaha, Nebraska, USA) discussed this point in his presentation at the 2013 AOCS Annual Meeting & Expo in Montréal, Québec, Canada. Management must be

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fervent in its desire to achieve safety goals, setting an example for others, Coffey said. By simply wearing personal protective equipment (PPE) on the job, managers can lead by example. Enforcement must be universal as well, or employees will not believe in the safety culture.

"If you have a plant manager or superintendent who doesn't care about safety, then it will be impossible to develop a [positive] safety culture," Coffey said. "It's like telling a kid to wear their seat belt. If you don't wear yours, they won't wear theirs, either."

With management on board, Coleman's next task was to get employees invested in developing a positive safety culture. The best way to do this is to give employees a stake in safety procedures and rules, letting their opinions matter in continued safety discussions. When employees care about safety, they improve the culture and are more willing to discuss safety issues.

To accomplish this, many plants, Coleman's included, establish employee-led safety committees with regular meetings. John Jefferson, senior vice president at Planters Cotton Oil Mill (Pine Bluff, Arkansas, USA), said his company's committees create safety policies, comment on processing issues, and bring ideas to management. They also develop goals

and benchmarks and discuss previous incidents. Members rotate off committees at regular intervals, with terms varying from a month to six months to a year. Committee minutes should be recorded and be made easily accessible for employees.

"We try to make it a part of their job, just like quality and production," Jefferson said. "The more you stress [safety] the better [the culture] gets."

Encouraging safety with incentives

Using incentives in different ways can also keep employees involved. Coleman posted safety statistics in break rooms, and as his teams passed benchmarks and met goals, Coleman threw small parties to celebrate achievements and awarded company jackets. The jackets, when worn outside of work, helped spread the word of the company's safety culture, which can lead to other positive developments, Coleman said.

"I have had people apply because they heard about our safety record and they wanted to work somewhere that had [a positive safety culture]," Coleman said.

While incentive programs with more extravagant awards exist, sometimes less is more. Incentives should not overshadow safety. Employees and managers may not report incidents in order to meet safety goals and earn incentives, which harms the safety culture. Although Bunge North America, the North American operating arm of Bunge Ltd. in White Plains, New York, USA, does not have a corporatewide incentive program for its 125 plants and 4,000 employees, individual facilities do reward other activities, said Mike Snow, vice president, industrial management, at the company's North American headquarters in St. Louis, Missouri, USA.

"Some of our locations have incentives, but all incentives are focused on proactive activities such as conducting job hazard analyses before beginning a task rather than on injury rates or other reactive measures," Snow said. "We prefer to use incentives when implementing new programs or procedures rather than providing incentives for ongoing safety activities."

Find the hazards; record the hazards

It is important to be thorough and try to consider all possible hazards, Coleman said, no matter how unlikely. Employees on the floor may recognize issues that arise through production, but they may

not predict uncommon hazards. Coleman chose to perform a full hazard analysis and critical control points inspection to identify plant hazards and inform employees of them. Similarly, Coffey schedules annual internal inspections of plant operations safety. To perform these checks, he sends employees to unfamiliar areas of the plant. Their fresh eyes give a unique perspective and identify hazards other employees may not notice. AGP also performs a job hazard analysis for each employee's position, Coffey said. The hazard analysis outlines the hazards and dangers involved in each job for the purpose of making employees more careful.

With the hazards identified, safety training can now be developed to address the specific challenges that facility will face. Effective safety training builds a strong foundation for a positive safety culture. New employees receive training from the moment they are hired, while older employees are retrained each year to reinforce safety ideals, Coleman said. Training can involve online work, classroom-style learning, books, testing, videos, workshops, and other methods. Coleman also referred to DuPont (Wilmington, Delaware, USA) and its Safety Training Observation Program (STOP). This behavior-based training program (http://tinyurl.com/dupont-stop) is a for-profit branch of the company's safety division, and Coleman said he implemented the STOP system to improve the safety culture by training all managers and supervisors in the system. OSHA does require that some training programs—such as bloodborne pathogens training, lockout/tagout training, and PPE training—take place annually (http://www.osha.gov/Publications/osha2254.pdf), but individual programs should be focused on a particular company's needs and goals.

All of the training and support will mean nothing, though, if the company does not keep records. OSHA requires companies to keep records of safety accidents; these records can be used to demonstrate growth and track progress. In addition, Coffey said it is important to look at near-miss incidents, or close calls where no employees are actually injured. Such occurences should also be recorded in order to analyze the factors that led to the event. By analyzing these factors, companies can engage in proactive behavior by installing engineering controls or performing specific safety training. The prompt, preemptive response boosts the safety culture.

According to Coffey, a shorter employee at an AGP plant several years ago attempted to reach a valve on an elevated platform 20 feet off the ground. To reach the valve, which required two hands to operate, the employee stood on the guardrail, and he was later disciplined for his unsafe behavior. But after submitting a near-miss report and investigating the incident, Coffey and his staff recommended extending the platform, making it possible for all employees to reach the valve safely. The report prevented future accidents and led to safer behavior.

Getting employees to report near misses and high-potential exposures, even anonymously, can be challenging in a plant with a poor safety culture. When a safety program becomes more established, employees will report incidents and exposures, and anonymity won't be a factor, according to Bunge's Mike Snow.

"Employees can make reports anonymously, but because we've created a culture where safety should be talked about, most choose to include their names," Snow said.

Assessing return on investment

Over time, incorporating these guidelines into a safety program can have a profound effect on the frequency of work incidents and the status of a safety culture. When Coleman started the aggressive safety improvement program at Rockline in 1999, the company's official OSHA incident rate—a metric that divides incidents by man-hours worked to create a universal statistic for state and national comparisons—was at 9.4%. When Coleman left the company in 2009, the incident rate had dropped to 0.9%. By comparison, the 2010 average for manufacturing industries was 4.4%.

During that same 10-year period, costs from work-related injuries at Rockline dropped 60–70%. Coleman estimated the safety department itself cost $120,000–150,000 per year to operate. In addition, improved productivity led to attrition, reducing the Rockline workforce from 650 to 500, he added.

The costs of developing and maintaining a safety program may seem great at first, but the money saved in workers' compensation claims and other costs is greater, Coleman stressed. According to the US-based National Safety Council (NSC), the average cost in 2011 of fatal or nonfatal work injuries (including employers' uninsured costs) was $48.3 million per incident. This includes lost manhours and the money necessary to cover health care costs. In comparison, Jefferson estimates that Planters spends $50,000 per year on its safety program. Snow reports that Bunge, with an average OSHA incident rate of around 2%, prefers not to think of its safety program in terms of its cost, viewing it instead as an investment in the company's employees.

For those wanting to improve a safety culture or develop a safety program, the most important point to remember is that doing so is a long, continual process requiring years of effort and compliance. Behavior can be difficult to change, but the results are worth it.

"Fixing a safety culture is like curing a cold. We didn't get sick overnight, and we won't get well overnight," Coleman said. "There is no panacea for a poor safety culture."

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