

# BoSC Update

Business of Safety Committee (BoSC)

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## A Character Study on Culture



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Have you ever been to a general store in West Texas? They have everything from horse feed to can openers. The tough part is finding it. You approach the store manager and first ask him how everything is going and how his family is. Then he asks you about yours. Within a few minutes, he asks what he can do for you. When you ask for an oil filter remover, he responds, "I am sure we have one here somewhere." You get your oil filter remover and go on your way.

I go to general stores because I like the culture there. It is one of respect for its customers and respect for its employees. Evidently, many other people like it too. Every Saturday, the place is packed. If you are in a hurry, they will surely slow you down, but they will demonstrate respect. Believe it or not, there is a business lesson here. It is a lesson on business culture, and here are some tips on how to turn your culture into a competitive advantage.

### Every Company Has a Culture

Every company has a culture. It is reflected in the way people do business every day with customers, suppliers, and most importantly, with each other. Culture is the set of values that guide people's behavior in the workplace. It drives how they determine if people are more important than profits, if profits are more important than people or if nobody cares one way or the other. For better or worse, a company culture will inevitably develop in your company. The question you must ask is whether you are developing your culture consciously or are backing into it by default.

### Culture Starts with Values

Values determine culture. Some people want to be independent, others want to belong, some care about success, others value control and some just want more money. In any organization, many values collide into each other at any given time. As safety manager, you must find out what the company values are and which ones you can use to your advantage and then mitigate those to your disadvantage.

### Culture Can Be Felt

You need not spend months developing a values and vision statement. Instead, use the ones your company has already developed then focus on day-to-day behavior since that is where values live or die. Shape your culture from the point of view of your customers first. What do you want them to see, hear and feel when they do business with you? Then work on internal customers like management and employees, and lastly, work on suppliers. *(continued on page 2)*

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## A Character Study on Culture

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As a safety manager, my first customer is my boss and then the president of the company. My job is to keep them happy and out of jail both within ethical bounds. I want my bosses to feel that they can trust me to make the right decisions and that I am there as a service. Trust means that I have the company's best interest at heart. Service means that I do things that others do not have the time or perhaps the ability to do. I am there to help, not hinder.

The message to employees is the same. They see that they can trust me and that I am there to serve, but they also see that I am there because I care about their safety and health. They feel that I am approachable and helpful.

The message is also sent to suppliers. They provide us with all of our safety gear. They need to see that I care about our employees and that I will not necessarily award the low bidder if product quality is not evident and our company will not be served. If you really believe these things, everyone will feel the culture of your company.

When I walk into the general store, they care that I get good service. In sharp contrast, go to a local mall. I walked into 20 stores in the course of a morning to see how they were. Out of 15 stores, no one ever asked if they could help me. Of the three who did, one acted as if I were interrupting their day. Only two cordially asked what they could do for me. Some of the employees were teenagers or in their early 20s, which indicates their rearing (or lack thereof). This could be a generational thing that my generation has created in the Generation X or the "What have you done for me lately?" generation.

What do people feel when they do business with your company? Do they like what they feel enough to keep coming back? Are employees afraid to tell you they had an incident or a near miss?

### Culture Must Be Reinforced

Values, desired behaviors and feelings change over time. What is important today may not be so important tomorrow. There is always the possibility that self-interest will pull your employees to follow their own values rather than the company's. This means that your culture must continually be reshaped, renewed and refreshed.

Nurturing culture is the most important challenge for safety managers, yet most do not pay much attention to this long-range responsibility. It is kind of like turning a battleship. You

turn only a few degrees at a time, but through the course of time, you can change the overall heading toward a better destination.

Instead of rewarding behavior that fits their culture of limiting behavior that does not fit their paradigm, many safety managers tend to react to the blizzard of problems that confront them daily. Does your management spend significant time shaping your culture? Do they hire people that fit this profile? Do they champion these cultural values?

### Conclusion

In a period of rapid change, companies need something stable. That is what culture is for. It is the glue that holds the company together because it tells everybody involved "This is how we like to conduct business." If that West Texas general store is any indication, when your culture is positive, it is also a great way to increase business. ■

### Mark Hansen

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## CoPS VP Renews Commitment to BoSC Objectives



As the Business of Safety Committee (BoSC) gears up for its meeting at Safety 2009 in San Antonio, TX, the Council on Practices and Standards (CoPS) is outlining additional ways in which the Council can better support BoSC's objectives. CoPS will serve as a resource for BoSC's proposed research projects on:

- Occupational safety and health risk assessment regulations
- How companies can benefit from the work of SH&E professionals
- The relationship between SH&E excellence, business value and competitive advantage

The above initiatives will help further the Council on Professional Affairs' Value of the Safety Professional project, to which CoPS will continue to lend its support. We will also work to include more business of safety-related articles in our practice specialty newsletters. To learn more about how you, as a practice specialty member, can assist in BoSC activities, please [contact me](#).

—George W. Pearson, CSP, ARM, Vice President, ASSE Council on Practices & Standards

### Safety & Employee Morale: Demonstrating the Link

By Michael Behm, Ph.D., CSP, East Carolina University

Does occupational safety and health performance correlate to employee morale? As safety professionals, most of us can cite evidence about how improving an organization's safety performance has led to business improvements, including employee morale. But does employee morale matter?

According to the Great Place to Work® Institute, which compiles a list of the best places to work in the U.S., satisfied employees are also productive employees. The U.S. Occupational Safety and Health Administration (OSHA), ASSE and *BusinessWeek* have all claimed that safety improves employee morale. ASSE Foundation funded a research study to collect data to test this hypothesis. The results of the research demonstrated that occupational safety and health performance and management is a significant component of employee morale. Organizations with high levels of employee morale have less OSHA inspections due to accidents and complaints, less serious, willful or repeat violations and less monetary penalties.

Moreover, these "best places to work" appear to have recognized the value of the safety professional. They staff their safety function differently than comparison companies do. They employ more ASSE members and a greater number of Certified Safety Professionals. It is hoped that the study will help safety professionals make a business case for the safety function and might also help organizations move on a path from good to great.

Results of this study will be presented at Safety 2009 in San Antonio, TX and will be published in the October 2009 issue of *Professional Safety* journal. ■

### Perspective on Safety Course for MBA Students

By Michael Behm, Ph.D., CSP, East Carolina University

Should safety professionals know more about business and economics, or should business professionals and managers know more about safety and health? The answer is yes. ASSE's BoSC has compiled a comprehensive amount of material to help safety professionals make the business case and communicate in business terms for the ultimate benefit of employees. But how can we get the message out to business professionals that good safety management is good for business?

One way is to incorporate safety and health management in business school curricula. That is what Xavier University in Cincinnati, OH and NIOSH did. They teamed up to develop and deliver an MBA course titled "The Business of Safety and Health" in the spring semester. The course included topics on corporate social responsibility (CSR), employee wellness, safety management systems and the economics of occupational safety and health (OSH) and also included numerous case studies and research projects.

Xavier believes CSR and worker safety issues are an important part of the overall umbrella of CSR. According to Xavier professor, Dr. Virginia Frings, and NIOSH lead, Dr. Steve Wurzelbacher, the course will continue, and it is hoped that a minor or concentration in OSH would eventually be developed for their MBA program. Another NIOSH goal is to develop off-the-shelf materials for use by business school faculty.

As a faculty member teaching future safety professionals, I see the widespread integration of our profession's key

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# Developing Capital Projects

By Mark D. Hansen, P.E., CSP, CPE, CPEA

Making the wrong decisions during a capital project can be costly to both the project and its leader. To eliminate this, careful planning should occur prior to starting a capital project.

Six major considerations taken into account when planning a capital project include the following.

## Budget

There is always pressure to keep project costs down, but the budget should not yield to this pressure. When constructing a capital budget, be conservative. If you think a piece of equipment will cost between \$10,000 and \$20,000, use the latter figure. It is better to have a meeting with the corporate accountants when the project is in the planning stage than when it is almost completed and needs more funding. In addition, include a contingency factor of 25% more than the entire budget.

Besides cost considerations, developing a conservative budget will result in personal success at the project's conclusion. Underpromise and overdeliver. By eschewing tight budget constraints at the outset, it is easier to be under budget at the project's conclusion.

## Project Schedule

Publish the project schedule at the beginning of the project and stick to it. Publishing the project schedule illustrates that the project must be completed by a certain date. Once in writing, the schedule will lend credibility to the project itself. Also, by publishing a project schedule early, excuses of ignorance can be avoided later.

A breakdown in the schedule will mean a breakdown in the project, which costs money and diminishes the project leader's credibility.

## Project Team

To finish a project, the leader will need some help. Some of it will come from employees who are already part of the project leader's organization, while some will come from outside the project leader's organization but from within the company, including those from other disciplines and counterparts at sister plants. And some may come from outside the project leader's company, including consultants or competitors.

These people should represent a mixture of disciplines and intimacy levels with the project, ensuring fresh viewpoints at each stage of the project.

Finally, the project leader should find people to whom s/he would not mind giving credit. Good leadership recognizes that when something goes right, the team is responsible, but when something goes wrong, the leader is responsible.

## Equipment

In the selection, purchase, procurement, installation and startup of new equipment, be sure to consider:

- What equipment is needed
- The levels of automation appropriate for the plant
- Equipment options
- Reputable vendors of the equipment to be purchased
- If different pieces of machinery should be linked mechanically and electrically

An inexperienced buyer can be easily overwhelmed by sophisticated sellers of sophisticated equipment. This is particularly true if s/he is required to work with several vendors simultaneously while still trying to maintain a focus on the project as a whole. Pay attention to this area and obtain whatever help is needed. The right equipment can be expensive, but the wrong equipment can be disastrous.

## Proposed Staffing

An equipment purchase should not be completed without considering the operators who will run it. Their talents and training levels play an important part in answering the questions outlined above. Finding the balance between capital costs and operating expenses is particularly important.

For example, semiautomatic equipment with an installed cost of \$500,000 that requires three operators and little maintenance and runs reliably may be a better option than fully automatic equipment with an installed cost of \$1 million that requires one operator and much stricter maintenance.

In fact, even fully automatic equipment requires operator involvement. Tasks such as monitoring the machine's operation, ensuring adequate material supply, clearing jams and performing preventive maintenance require equipment attention and knowledge.

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# Ten Tips for Living & Working at a Comfortable Pace

By Mark D. Hansen, P.E., CSP, CPE, CPEA

At the end of a particularly busy week, would you describe the way you feel as “a ball of energy” or “a blob of protoplasm?” Why is it that some people, despite their hectic schedules, get to Friday night with energy to spare, while the rest of us barely have the stamina to push the buttons on the TV remote?

Much of it depends on how we respond to daily events. In his “10 Commandments for Living and Working at a Comfortable Pace,” author and lecturer Jeff Davidson, MBA, CMC offers his suggestions for not feeling overwhelmed by life:

**1. Constantly review your priority list,** the one that identifies what is important in your life and what you want to accomplish. There is so much competition for your time and attention that it is easy to lose sight of our priorities. Summarize your goals on a business-size card and put it in your wallet. Whenever you have a moment, take out the list and review it.

**2. Challenge and defeat your own ritualistic behavior.** We all have rituals, sharpening pencils before starting a task, adjusting the blinds a certain way and so on. Some make sense, but in general, we all have elaborate routines that do nothing more than let us stall before beginning our work. Drop these and you will have more time to get things done.

**3. Consider the outcome of not handling something.** Your subscription to a magazine is about to expire, for example. Let it. Three months later if you miss it, they will take you back with open arms. But if you do not miss it, you are ahead of the game.

**4. Convincingly, but politely, say no.** We are all besieged with too many requests for our time, and we are most vulnerable when it is for something far into the future. Nothing may be scheduled on your calendar now, but as that date approaches, all types of responsibilities and scheduled appointments will have emerged. Certainly, it is important to help people, but consider whether you should say no more often than you have in the past.

**5. Call rather than visit.** When it is important to meet with someone face-to-face, be there face-to-face. But any time you can take care of a situation to everyone’s satisfaction by telephone, fax or e-mail, use the technology.

**6. Clear your desk except for the task at hand.** Focus on one thing at a time, so you can give it your complete, undivided attention. You will finish faster and will have more energy to work on what is next.

**7. Clear your files of dead wood.** Efficiency experts claim that 80% of what we file is never used again. Maybe you do not overfile to that degree, but at least half of what you are holding onto can be eliminated. Pare down so you will have space for what is coming. We know that more is always coming, so we might as well create space for it in advance.

**8. Choose to feel at home, even when you are not.** Some people must wait until the end of the workday, go through the commute, get home, kick off their shoes and sit in their favorite chair before they feel relaxed. But you can make yourself feel comfortable wherever you are. For example, you can decide to have a pleasant commute, regardless of the traffic. Stock your car with tapes of music, lectures or whatever stimulates and inspires you to redeem the time.

**9. Make your work count twice.** Any time you write an article, that article can be crafted into a speech or a presentation. The reverse also applies. Look for all the things you do in your normal workday that can benefit you now and later.

**10. Choose to get a good night’s sleep.** This is perhaps the most important of the guidelines for living at a comfortable pace. Many of us run around with less sleep than we need. We are less alert, and we are less able to function at optimum capacity. At least one night a week, be in bed by 9:00 p.m.

Additionally, if your calendar tends to fill up, create space by canceling something that is already scheduled. Spend some time on non-work activities. This could mean enjoying your family, staying in shape or simply taking a stroll. In many cases, that is where your best ideas come from, while you are not thinking about work. ■



# On-the-Job Safety: Fire-Proofing Your Job

By Mark D. Hansen, P.E., CSP, CPE, CPEA

No matter where you are located in your company's organizational chart, getting fired is something that can happen to all of us. You can get fired due to layoffs, mergers, acquisitions and sell-offs or as a result of downsizing. You can get fired as a result of your own actions, insubordination, fraud, misrepresentation or poor relationship with co-workers, subordinates or superiors. However, you can do several things to avoid getting fired or laid off regardless of your place in the corporate food chain.

## The Early Bird Gets the Worm

Try to arrive to work before your boss gets there, and if possible, leave after your boss leaves. If your boss gets to work at 7:30 a.m., get there by 7:15 a.m. If you work downtown and want to beat the traffic, get to work even earlier. It is amazing how much you can get done before 8:00 a.m. when the phone rings and hallway conversations strike up.

Getting to work before your boss gets there demonstrates that you are serious about your job and are committed to it. Arriving to work early may also allow you and your boss some time to discuss issues s/he would not discuss with you otherwise in an office full of people. Perhaps even a little bonding will develop, endearing you as much as a friend rather than just a contemporary. You probably will put in more than eight hours a day, and this goes a long way in fire-proofing your job.

## Be Flexible

Be ready to do something outside your job description or outside your technological comfort zone. If you are asked to write an environmental report, research it, find some models, call some colleagues and figure it out. Do not say, "That is not my job!" or "I cannot do that!" If you want to fire-proof your job and potentially move up the food chain, show that you are willing to learn a new discipline, especially if you will potentially manage that discipline.

Periodically ask your boss if there is anything you can do to help. Ask for things you can do that your boss does not like to do or does not have time to do. That way you can learn what your boss does and can act more responsibly in his or her absence. Also, be vigilant when your boss is stressed and needs help. Helping your boss meet a critical deadline can pay tremendous dividends in your future raises, bonuses and promotions. This is not a guarantee, but your boss may speak well of you to others in your absence, furthering your career.

## Speed It Up

When your boss gives you a task to do, stop what you are doing and get on it immediately. Your boss needs to know that the tasks s/he gives take priority over your own agenda. When your boss asks a question you cannot immediately answer, research it and get back to him or her within the day or first thing the next morning. Your boss must know that you are committed to your work and that you will sacrifice your own agenda to help meet deadlines. Your boss is your first customer. Speed indicates that you are on top of your discipline and that it does not take too much time to find the answer to the question s/he is asking. Also check your answer to ensure that it is accurate and correct before submitting it to your boss.

## Walk in Lockstep with Your Boss

This may not be popular, but agreement with your boss is important. Your personal views may differ from your boss's, but they need not be aired in public, even if they are of an ethical nature. Share your personal thoughts with your boss in private, but always support your boss in public. Do not make your boss look the fool—it will only hurt you in the long run.

## Put Your Boss in the Best Possible Light

Not all bosses are liked by employees and co-workers. However, your boss most likely hired you or had direct input into your hiring. Supporting and defending your boss when s/he is not present has its benefits.

First, people will understand that what they say about your boss will get back to him or her if they say it in front of you. Knowing that you are a direct conduit to your boss will force people to say less disparaging remarks about your boss in front of you.

At one location where I worked, a co-worker would come into my office and tell me how bad our boss was. After a few sessions of non-committal responses on my part, I told my co-worker, "If you are looking for me to agree with you about how bad our boss is, you are barking up the wrong tree. This guy just hired me. If you have concerns regarding your job and your relationship with our boss, I suggest that you approach him rather than tell me your troubles. After all, telling me will not effect any change in him."

If your co-worker's problems escalate, it may become a human resources issue. If you are called in to the human resources department to attest to past comments, you can say that you had no problem with your boss rather than having to justify what you said, which may have corroborated the disgruntled employee's comments. It is difficult to explain to the human resources department that you really did not mean what you said or that you really did not agree with your co-worker's comments. Be careful—the job you save may be your own.

Second, if you make the right decisions, it will make your boss look good. Making your boss look good always pays off. Other ways to put your boss in the best possible light is to interact well with other people. You represent your boss and your department, and when in public, you represent the company. If you represent your boss well, you can further fire-proof your job.

### **Mind the Store in Your Boss's Absence**

Before your boss leaves for an extended period, find out what hot items may need attention in his or her absence. Make a list of these items and check it during his or her absence to ensure that you are ready for anything that happens. If those hot items surface, address them and write a status report for your boss. Take the initiative to solve problems in his or her absence, while also getting your own job done. If you want to be promoted, this will impress your boss's boss. If something happens that appears to be beyond your ability, check with other corporate resources, colleagues, etc. Try to take care of business so that your boss will return to a shortened to-do list.

### **Bloom Where You are Planted**

Many people today want their boss's job so badly that it is all they talk and think about. It can irritate your boss and his or her peers and perhaps even your own peers. Enjoy what you do and do not focus on your next promotion. Many people are promoted because they focus on their job rather than on how to quickly advance their career. Upper management tends to promote those who are happy where they are and avoid those who want it all now. Do not worry so much about getting promoted. If you are a performer, others will notice and will take the appropriate action.

### **Keep Your Cool**

People who keep their cool usually make it to the top in the long run. They are unflappable and can handle emergencies as well as pressure from the media. The cool cucumber ultimately gets the kudos for making the company look like it has its act together in front of the public, other companies and the media. Those who lose their temper easily often look

childish. Remember, it is not management by volume. Keep your cool even when you want to turn the volume up and your heart is racing.

### **Zip Your Lip**

If you cannot keep a secret, do not expect to make it to the top. To make it to the top, you must be known as someone who can be told anything in confidence. If you think you impress people when you share hot inside information, you are wrong. You look untrustworthy. If your boss discovers that you are the leak, s/he may decide to sanitize what you are told or to not tell you at all, cutting you out of the loop.

At one location where I worked, I discovered a "leak" in the department. I set up a situation with the suspected employee where I told him a particular piece of information. I clearly indicated that my communication was in confidence. Once I heard that same information rattling around in the field, I cut him off. Later, he discovered that he had not been clued in on a major departmental activity that I wanted to keep under wraps until unveiled. He asked why he was not clued in. I told him that he had proven himself untrustworthy.

If this happens to you in the future, you may not be privy to inside information that affects your job. Others will know more than you will, and you will have blown your opportunity to be on the inside.

### **Address Thorny Issues**

In safety, many thorny issues and potential land mines exist. Be current on issues and technologies and be able to speak on them. Do not sidestep questions—address them head on and leave no room for rumors to creep in. Think before you speak so that you do not misinform. Show that you know the issues and all related areas of potential impact to safety.

### **Anticipate**

Never expect that everything will go as planned. Have a Plan A, a Plan B, a Plan C and perhaps even a Plan D. This takes time and careful thought. Do not say anything to the troops that you would not mind your boss hearing. Find out what your boss's questions would be and answer them before s/he asks them. Be prepared.

### **Be Decisive**

Safety professionals do not like decision-makers who waffle on making decisions. Do not be one of those people. Give the options thought and careful deliberation, but in the end, make a decision. Many people try to wait until the last possible

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## Fire-Proofing Your Job

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moment to decide and then put it off because of new information. Make the decision now but be prepared to alter your course based on additional information.

## Keep Getting Smarter

Readers are leaders. To get to the top and stay at the top, keep learning every day. You must stay up-to-date on safety regulations and standards. Being known as someone who is smart on the important issues helps keep you fire-proof.

## Lighten Up

Everyone wants to be part of a positive activity. The converse is also true. Negative people tend to drain your energy. Be the positive person who people like to see coming because you are a joy to be around whether or not you are bearing bad news.

## Be Able to Speak on Your Feet

Most safety professionals speak well on their feet; however, this is not always the case. We all know how important it is to speak on a variety of safety-related topics. This will also help when you are called to speak to the board of directors or to the company president.

## Sing in the Rain

When you are handed a tough task, do not drop your head and trudge off with a bad attitude. Lighten up your attitude and attack it like you would any other safety-related task. Do not worry; be happy in all that you do. Bend over backwards to do it well. Do not act as if it cannot be done or you do not know where to start. Showing that you can handle tasks outside your stated expertise gives you an excellent opportunity to create a positive impression to your superiors.

## Conclusion

To survive acquisitions, mergers, joint ventures, downsizing, rightsizing and potentially capsizing, fire-proofing your job is crucial. Keeping these things in mind can help you from getting fired in the long run by illustrating your corporate worth and by keeping your boss happy. ■

## Developing Capital Projects

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### Pitfalls

Most project pitfalls are the result of poor communication. The project leader should use the resources available to compile as much information as possible. Specific project pitfalls include:

- Lack of discussion between the plant, the business unit and the customers prior to the project's commencement
- Not publishing an accurate schedule
- Selecting inappropriate machinery for purchase
- Not involving operators in the plan
- Lack of accountability

### Conclusion

Project leaders who can successfully complete capital projects will increase their company's value and will, in turn, be valued by the company. ■

### References

Reilly, J.M. (1996, Aug.). *Chemical processing*, 83.

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## Safety Course for MBA Students

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management areas and business benefits into business curricula as one of the strategic trajectories that will enhance our profession and the quality of life for workers in the future. I hope that as this model spreads across the country in various business schools, ASSE members will begin to engage with their local business schools to let them know about the Xavier-NIOSH model and to offer their expertise through guest lectures, plant tours and real-life case studies for business students.

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