How Smart Managers Improve Safety & Health Systems:
Benchmarking wi

In a future search, people have a chance to take ownership of their past, present and future, and commit to action plans grounded in reality. . . .

In a future search, people seek common ground rather than resolve conflicts; focus on the future rather than solve old problems; generate broad commitment to a common goal; identify creative strategies; and take responsibility for actions. . . .

—Weisbord and Janoff (ix)

In his essay, 'Unimagined Futures,' Handy discusses how the organization of tomorrow will be structured, or rather, unstructured. He mentions a library in Dubrovnik, Croatia, built to tiny proportions to replace the one destroyed by civil war fighting a few years ago. Although the library is small, it is linked by computer to all libraries in the world. Imagine that. Vast amounts of knowledge such as this will be available to you to get your required training done (Handy 378; Garner and Horn 169). Or, imagine having access to this knowledge to address many other needs required by a competitive, aggressive company whose management keenly desires to "do the right thing" for employees, company and community.

As this new millennium opens, many people are wondering what new inventions, frontiers and opportunities will emerge. The unfolding of this new, untarnished span of time presents an excellent opportunity to take stock of where safety has been, is and should be heading.

Although current safety professionals will not be alive to see the next millennium, most will be around long enough into the 2000s to make a difference in the safety and health world. Today's safety professionals can survey accomplishments and challenges, and develop a plan to transform those challenges into achievements. In surveying accomplishments, what is the one major success that safety professionals can cite? In the authors' opinion, Figure 1 shows the most telling achievement for which the governmental, employer and employee communities can take credit.

Futurists take the positive attitude of focusing on common ground and goals to solve problems rather than focusing on trying to reach solutions through conflict. Safety professionals should follow this lead and seek common ground and goals with a focus on desired results.

ON THE HORIZON

What is ahead for employers? What are some realities on which safety professionals can ground action plans? To name a few, OSHA is pressing for rules covering ergonomics and written safety and health programs, and is finalizing its recordkeeping revisions (Fowler 12).

Any one of these developments will influence how corporate leaders conduct business. Two or more may have serious repercussions throughout any business organization—large or small. All three will require compliance to some degree by all employers covered by the OSH Act. Thus, the challenge is to accept the possibility that all of these mandates will be issued in the near future and to plan now for compliance.

Employers can also expect higher workers' compensation costs and other injury/illness-related costs. Figure 2 offers a snapshot of 1996-97 statistics. What is wrong with this picture? Occurrences are *decreasing,* but costs are *increasing.* In 1997, employers reported 100,000 fewer disabling injuries, yet costs increased $6.7 billion. This negative trend will surely continue—if employees do not take action to reverse it.

What other activities will continue? Congress has increased OSHA's budget for enforcement, which means related activities will intensify. Figure 3 examines these activities for 1997 and 1998. The number of inspections increased slightly, while the number of violations and monetary value of penalties increased greatly.

th VPP Criteria

By CHARLOTTE A. GARNER and PATRICIA O. HORN

Workplace changes—those currently occurring and those materializing—will also affect the organizational, cultural and economic structure of companies. When the OSH Act was passed in 1970, employers relied on typewriters, surface mail, invoicing machines and telephones to conduct business. Most people worked on assembly lines, or in manufacturing companies, mines, steel mills and construction—and most performed strenuous, exhausting manual labor.

Today, workers telecommute, use personal computers, communicate via the Internet and work in businesses that did not exist in 1970. The industrial sector now employs mechanical aids and automated processes that reduce the physical demands of many jobs (although these advances often introduce new hazards, many just as dangerous as those of the past).

Not only have work methods and businesses changed, the composition of the workforce has changed along with it. Today's workforce comprises more females, minorities and older workers. Such a diverse group changes the complexion of safety and health protection.

In addition, futurists predict that a uniquely skilled workforce—such as qualified craftspeople, certifiable technicians and college graduates—will be in short supply. Employers can only stretch salary and benefits so far; then, they must use other methods and means to fit available workers into their operations. Employers will look not so much for credentials, but for the ability to perform the task at hand.

Service and technology industries have expanded dramatically since 1970, while manufacturing and construction industries have slowed in comparison (Byerrum 1532). In the future, workers will face hazards from increased stress, fatigue due to long hours, new chemicals and emerging technologies. This will significantly affect how safety and health principles and practices are applied to provide the best protection to a diverse workforce in a diverse economy while still generating a profit.

WHAT THIS MEANS TO SAFETY PROFESSIONALS

To meet this challenge, safety professionals must address these changes with vigor and focus. Practitioners must be receptive to new avenues, directions and techniques to transform these challenges into achievements. Knight Kiplinger states:

> The Chinese have a wonderfully understated curse: "May you live in interesting times," meaning treacherous times as fraught with danger as they are rich in opportunity. . . . There will be unlimited opportunities (for those who recognize the changes)—in technology, demographics, business organizations and marketing, and social attitudes. For those who cannot or will not accept the inevitability of fundamental, rapid change, the dangers will be overpowering. But if you prepare for them and adapt your way of thinking, working and viewing the world, you will prosper mightily (Kiplinger 18).

Work With OSHA

To be in the group that prospers, safety professionals must accept the fact that OSHA will exist for the foreseeable future. In some form or another, rules will be in place to regulate safety, health and environmental conditions in the workplace. By accepting this fact, safety professionals can strive to cooperate and develop goodwill with OSHA in order to support, assist and recognize efforts to comply with rules with which companies must comply anyway. Why not take the high road? (Garner and Horn v).

Continue to Decrease Injury Statistics

Safety professionals must continue to do whatever possible—individually and collectively—to decrease the number of deaths, injuries and illnesses. The goal is to do it better wherever possible. Prevention and proaction are the most-efficient—and cost-effective—means to diminish the number of tragic events. This part of the safety and health world is improving—and the means are available to continue that trend.

Focus on People Issues

Consider communications, attitudes and training. Safety professionals recognize the availability of mechanical aids to help workers. However, one must wonder how much more personal protective equipment (PPE) workers can wear and still maintain the mobility needed to perform the task at hand. In the past, such protection made giant inroads to improving worker safety. Now, one must wonder whether we are on the verge of overkill.

FIGURE 2
Injury Costs*, Lost Days & Disabling Injuries 1996 vs. 1997

	1996	1997
Total Work Injury Cost (billion)	$121.0	$127.7
Total Days Lost (million)	125.0	125.0
Disabling Injuries (million)	3.9	3.8

*Source: *Accident Facts*, 1997 and 1998 editions.

FIGURE 3
OSHA Inspections, Violations & Penalties 1997 vs. 1998

	Inspections	Violations	Penalties
1997	34,264	83,710	$ 89,447,893
1998	34,403	98,256	$107,987,498

Source: *Occupational Safety & Health 1999: Job Safety Outlook.* Jan. 13, 1999.

FIGURE 4
Benefits Realized by VPP Companies

Fruit Juice Co.: Comparing 1988 to 1993
OSHA recordable accidents	53% fewer
Lost-time accidents	83% fewer
Lost-time days	79% fewer
Total accidents	68% fewer

Attributed to VPP involvement:
  Increase in total labor hours worked.
  Harmony and cooperation between workers and supervisors.
  Employees empowered to manage their personal safety.
  Cooperative relationship between the company and OSHA.

Pulp Mill
Increase in production; decrease in incident rate.
In 1985, production was ≈ 500,000 tons; incident rate near 18.0.
In 1992, production was = 1,000,000 tons; incident rate near 4.0.
In 1992, a 1.5% absenteeism rate, a record low.

Chemical Products Co. approved for VPP in 1988
1987: Injury rate of 6.5.
1988: Injury rate of 2.6.

140-Employee Site, Chemical Co., Star* 1988
1980-1988, average workers' comp costs of $110,000.
1988-1993, average workers' comp costs of $98,000.
1986, total recordable rate was 2.6.
1993, total recordable rate was 1.39.

7,200-Employee Co., Six Major Unions, Star* 1985
1990: Injury rate of 5.6 for the company.
1991: Company injury rate of 3.39.
       Combined contractor rate of 6.69.
1994: For the site, 2.7.

1,800-Employee Co., Star* 1991
1989: Workers' comp cost of $168,000.
1993: Workers' comp cost of $87,000.
       Absenteeism down from seven percent to two percent.

800-Employee Refinery, Star* 1994
1991: Workers' comp cost of $200,000.
1993: Workers' comp cost of $22,000.

Source: Voluntary Protection Programs Participants Assn.

One must also remember that PPE is merely a bandage on root problems. It is now time to focus on people issues—upstream, proactive engineering of worksites, proactive training and communication, improving owner and worker attitudes and behaviors, and total management and employee involvement. These are difficult processes that take a long time to accomplish. Yet, they are the tangible and intangible means that exert tremendous, long-lasting influence on humans to improve their ways of working.

Maximize Technology

Safety professionals must remain current on innovative new technologies. Consider the information technology that is available—handheld computers; Internet and e-mail; mobile telephones that receive calls, record messages and link to office phonemail. In addition, software is now available to track compliance activities, behavioral changes and training; compile trend data; and track corrective actions and annual medical requirements for employees.

Consider how these technologies can affect the engineering of new workstations, not only in the office, but also in the machine shop, on conveyor and assembly lines, and in process units. The world of knowledge and information is available at little cost—certainly much less than the fees an employer will pay to contest a citation or pay penalties levied.

Communicate, Communicate, Communicate

If the futurists are correct, the work environment will take a more open, circular form. Management, safety professionals and employees will work together as a team to solve mutual work-related problems. Management will share financial conditions, company-wide goals, missions and long-range plans with all employees. The organization will be a cohesive group striving to achieve common goals.

The Internet and intranets have revolutionized communication—particularly when decisions are required within days or hours. Historically, policy and decision communication has had to travel up the chain of command through layers of middle management. Sometimes it reached the addressee; sometimes it was stopped along the way or returned for revision.

With networks, the information can be sent instantly to the executive, with copies to all others; as a result, it can be discussed among all interested parties and issues resolved quickly. Critical safety and health decisions can now be made within days, rather than weeks. Effective safety managers use these advances to accelerate transmission of information and respond to worker concerns—all with the goal of decreasing the number of injuries and illnesses and increasing productivity.

Work on Culture

Safety professionals must also assess corporate culture. Does it encourage open communication of what has previously been sensitive information about finances and long-range plans? Or is the information still compartmentalized, with only certain details available to a select group? Is that group disseminating the information to its members or allowing the "grapevine" to spread rumors? Grapevine communication can be negative, incorrect or both.

New information systems spread the correct news faster—and further. Safety professionals must welcome this development and capitalize on it. They must make these messages work for safety; they must share facts about the health and welfare of employees and the company; advertise the need for well-informed, skilled team members; and explain what it takes to attain and maintain these objectives. They must stress that this information helps all involved work together to achieve common business goals.

For environments struggling under the hierarchical management style, various resources are available to guide efforts to change the culture, as well as to improve management and employee behavior. For example, in "Three National Laws of an Effective Safety Program," Madison discusses "top-down management-employee involvement; a culture that encourages openness and learning; and programs that address specific needs" (Madison 37).

What Are Voluntary Protection Programs?

The Voluntary Protection Programs (VPP) consist of three categories of safety and health management programs that employers can implement. VPP were adopted by OSHA in 1982 to "emphasize the importance of, encourage the improvement of and recognize excellence in employer-provided, site-specific occupational safety and health programs. These programs are composed of management systems for preventing or controlling occupational hazards. The systems not only ensure that OSHA's standards are met, but [that programs] go beyond the standards to provide the best feasible protection" (*Federal Register* 28314). The requirements are comprehensive and cover basic elements that constitute an excellent safety and health program.

In May 1996, the Office of Cooperative Programs issued OSHA Instruction TED 8.1a, *Revised VPP Policies and Procedures Manual.* The explanation of the changes states:

1) Changes in policies and procedures are required as a result of the December 1994 VPP Reinvention Conference. Such revisions include the timing of participant evaluations, requirements to become a team leader, and streamlining the evaluation paper and the approval process.

2) Experience dictated clarification in a wide variety of areas, [such as] interpretations, submission of annual statistics, procedures for contract employees, conforming the element of the VPP to OSHA Voluntary Safety and Health Program Management Guidelines, and explanation of the Mentoring and OSHA Volunteer Programs.

These changes had some affect on program application and implementation. Overall, however, they do not negate the worth of complying with the criteria. In the authors' opinion, VPP criteria remain the best objective means for attaining and maintaining an excellent safety program, as well as the resulting increases in productivity, cooperative employee interaction, reduction in workers' compensation costs and increased net profit.

OSHA's Office of Cooperative Programs is the contact point for VPP activities. These programs are separate and distinct from the enforcement arm of OSHA. They are entered into voluntarily by employers with the assistance of the Cooperative Programs Office and the designated VPP representatives in the OSHA regional and field offices.

When an employer applies for and is accepted as a VPP participant, it is removed from the programmed inspection list (although OSHA reserves its legal right to respond to worker complaints, major spills and work-related fatalities). To date, more than 600 facilities participate in the program.

It should be noted that an employer need not apply for formal acceptance to implement VPP criteria. The process is strictly voluntary. However, should an employer elect to apply the VPP criteria without applying to participate, it is likely that OSHA will look more favorably on that employer.

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Take Control of Safety Programs

Safety professionals must take control of safety and health programs. Programs must be evaluated; if none exist, they must be developed and documented without delay. OSHA's most-frequent (2,288) citation in FY98 was for lack of a written safety and health program ("Most Frequently Cited" 10).

According to OSHA's semiannual regulatory agenda, "Worksite-specific safety and health programs are increasingly being recognized as the most effective way of reducing job-related accidents, injuries and illnesses. . . . Many states have . . . passed legislation mandating such programs for some or all employers . . . because the results they have achieved have been dramatic. All companies in OSHA's Voluntary Protection Programs have established such programs and are reporting injury and illness rates that are sometimes only 20 percent of the average for other establishments in their industry . . ." (*Federal Register* 21534).

Use VPP Criteria

Employers that participate in the Voluntary Protection Programs (VPP) have recognized that an effective safety and health program affects the bottom line. To get ahead now, safety professionals should follow their example.

VPP criteria are a model; they are available to all companies—any size, any industry, any location—whether or not they apply for participation in the program. The sidebars provide some details. VPP also offers the advantage of being developed and approved by OSHA; the agency supports this initiative and touts the results achieved by participants. The criteria were developed as a set of impartial, external and credible objectives by which safety and health program effectiveness can be measured with confidence. Furthermore, an OSHA compliance officer knows with certainty that s/he need not worry about compliance at such a facility so s/he can concentrate on more-troublesome sites.

Literature about VPP is readily available. A good starting point is "OSHA's Voluntary Protection Programs" (Federal Register 26341) and *OSHA VPP Policies and Procedures Manual,* (OSHA Instruction TED 8.1a). These help the reader develop an understanding of the challenges, techniques and rewards involved in implementing an excellent safety and health program. One will find all requirements covered by sensible, comprehensive means to full compliance—that a company can implement voluntarily.

Go Beyond Compliance

As society shifts into the proactive and receptive mode of futuristic thinking, it is a good idea to consider going beyond compliance. Safety professionals and their employers must evaluate, measure, anticipate, plan and set goals to surpass compliance and aim for constant improvement.

To do so, they must look at all factors and elements of safety and health programs—not merely incidence rates. Other performance factors to consider include new programs initiated; management and employee involvement; and integration of safety requirements into the annual budget and long-range plans. Several measurement tools that include these elements are available. For example, OSHA's Performance Evaluation Program Profile includes many more items than incidence rates and insurance experience modification rates (OSHA Notice CPL.2).

CONCLUSION

The bottom line is this: Safety professionals must take control of their safety and health programs now to be ready for the challenges of the future. By doing so, safety and health professionals improve their future and help control the affairs of their employers.

OSHA can be a cooperative partner in the effort to correct compliance problems. Technological innovations and organizational opportunities can contribute to a superior safety and health program as well. This superiority has a domino effect on the well-being of the company and its employees.

Superiority and excellence in safety programs produce a safer, healthier work environment for employees. This leads to improved employee morale, motivation and attendance. Motivated employees

Three Categories of VPP

VPP consists of two major programs—Star and Merit—and a Demonstration Program designed to permit demonstration and/or testing of experimental approaches that differ from the two established programs. Within the Star and Merit programs, requirements for general industry and the construction industry vary.

The **Star** program is based on the characteristics of the most comprehensive safety and health programs used in U.S. industry; it aims to recognize leaders in injury and illness prevention programs that have successfully reduced workplace hazards and to encourage others to work toward such success.

The **Merit** program is for employers (in any industry) that do not meet Star qualifications, yet wish to pursue Star program participation. If OSHA determines that the employer has demonstrated the commitment and potential to achieve Star requirements, Merit is used to set goals that, when achieved, will qualify the site for Star participation.

The **Demonstration** program allows firms to demonstrate effectiveness of alternative methods that if proven successful (usually at more than one site) could be substituted as alternative qualifications for the Star program (under certain situations); to explore use of VPP in industries other than construction and those classified as general (e.g., maritime, agriculture); and to test methods of overcoming problems that have prevented certain employers and many construction contractors from participating in the program.

Those worksites that apply for Demonstration acceptance must have in place all elements of the Star program. How an applicant implements these elements may be the subject of demonstration, provided Star-quality protection is afforded all employees. The Assistant Secretary of Labor for OSH must be satisfied that the alternative approach shows reasonable promise of being successful to serve as an alternative basis for inclusion in the Star program.

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Patricia O. Horn *is a safety and health consultant who assesses safety and health programs and offers guidance on qualifying for VPP status. While a senior program analyst and general industry coordinator with OSHA, she helped develop the initial VPP Star requirements, as well as VPP site review and evaluation procedures. In addition, she led the OSHA site evaluation team to the first company accepted as a VPP participant in 1982. Since entering private practice, Horn has also worked with the VPP Participants Assn. to design workshops and a training video for potential participants.*

Garner and Horn are co-authors of the ASSE publication, How Smart Managers Improve Their Safety and Health Systems. *For more information on this book (Order #4371), call ASSE's Customer Service Dept. at (847) 699-2929.*

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are more productive and efficient, which leads to higher profits. Figure 4 offers a representative sample of VPP-participating companies that have reported improved workers' compensation costs, absenteeism, productivity and profit (VPP Participants Assn. Conference).

Over the past 30 years, safety has largely conquered the mechanical aids and PPE challenges. Now is the time to utilize existing and emerging technological advances to solve the most-challenging people issues: behavior, communication, culture, training and involvement. Safety professionals must not only strive to identify root causes of injuries and illnesses, but to create long-term solutions. The effort is more than worth it—and it is profitable. It is a win-win situation for employees, employers and safety professionals.

Adopting this outlook and using VPP as a guidepost:

whatever future changes, new skills, new equipment or new hazards may be introduced into your work environment, you will discover that you are prepared for them . . . [you will have a safety program] based on unchanging, natural principles—mutual trust and respect, continuous improvement, constant self-assessment and evaluation, a learning organizational culture, verifiable measurements, and open, genuine, thoughtful communication with your employees (Garner and Horn 171).

Without doubt, this new century can be "mightily prosperous" for those who can confidently envision the future and take action on the opportunities it presents. ∎

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