

# SAFETY MANAGEMENT: A CALL FOR (R)EVOLUTION

*Occupational injury rates are now at a 12-year high and the workers' compensation system, the primary funding source for these losses, is stressed to crisis proportions throughout our nation. "Traditional" safety programs are not working! Despite these adverse results and contrary to a growing body of data questioning the effectiveness of traditional safety programs, American industry continues to employ these philosophies in the workplace. This article calls for a "Safety Management (R)evolution" linking safety effectiveness to organizational culture: a process of patterned, predictable change in management values and behaviors. This (R)evolution is identified as a prerequisite to attaining World Class safety performance.*

By **LARRY HANSEN**

In the aftermath of World War II, W. Edwards Deming challenged American industry to maximize productivity by applying statistical process controls, continuous improvement philosophies and total quality management. However, his challenge

AMERICAN SOCIETY OF SAFETY ENGINEERS

went unanswered.

Some 30 years later, Tom Peters presented a new challenge to American management—a challenge for “organizational excellence” founded in superior customer service and customer perceived satisfaction. Today, a decade after this challenge, Peters reluctantly concludes: “... there are no excellent companies” (Solomon B-8). He does, however, profess that excellence is now accepted in our management vocabulary and perceives this as part of a new industrial revolution which will reposition America as a leader in a redefined world marketplace.

American managers have indeed acquired bad habits during the past 40 years. They now, however, recognize that “almost anybody can run a company in boom times because a lot of mistakes are masked by accelerating market conditions. Those same people can sit back and watch their company go down the drain and blame everything but their own lack of action or decision making” (Hoppe).

These awakenings have created a “GOOD NEWS-BAD NEWS” scenario:

**THE GOOD NEWS IS:** An American management revolution is, in fact, underway, with executives across the nation responding to Deming’s mandate that: “Top management must feel pain and dissatisfaction with past performance and must have the courage to change. They must break out of line, even to the point of exile amongst their peers. There must be a burning desire to transform their style of management” (Deming - *Out of Crisis*).

These executives also recognize that such change will take considerable time and energy. Ray Stata of Analog Devices Inc. concedes, “We are the furthest behind in what I call ‘management technology’ in my company, in the high tech sector and in all of American industry. Once you awaken to that challenge and decide to do something about it, you may face a 5- to 10-year correction exercise” (Shermerhorn).

**THE BAD NEWS IS:** None of this applies to occupational safety!

#### TRADITIONALISM PERSISTS!

American business continues to embrace traditional safety programs—programs that are isolated from the mainstream of the organization and administered by staff managers who lack the authority and organizational positioning to effect change.

“We’ve gone from classical management in the 1950s, to human relations in the 1960s, to situational management in the 1970s, to cultural management in the 1980s—all major shifts in philosophy. During these major philo-

sophical management shifts, safety has gone its own way, ignoring reality: most safety programs remain ‘classical’ in nature; management decides, people follow the rules” (Petersen 47+).

Most current programs are based on traditional safety elements, which include: safety directors, safety committees, safety meetings, safety rules, slogans, posters, campaigns and safety incentive programs—all marginally effective. These traditional strategies place safety responsibility with a staff coordinator who is isolated from the line mission and is tasked almost exclusively with inspecting out hazards.

This approach fails to integrate safety into the organization, thereby limiting its ability to identify and resolve management oversights that contribute to accident causation. Activities employed in traditional programs are frequently “postvention” tracking with “blood cycles”—being highly visible after severe injuries and, with time, returning to low pre-injury levels. In many organizations, safety is paid for in blood, with little benefit received for the significant amount of safety dollars expended.

“American workers in the private sector suffered 6.8 million occupational injuries and illnesses in 1990. This was an increase of 177,000 injuries and illnesses over 1989, and results in a 1990 incidence rate of 8.8 per 100 full-time workers, the highest rate since 1979. As in the past, construction and manufacturing, with incident rates of 14.2 and 13.2 respectively, had the highest rates” (“1990 Incidence Rate”). This adverse trend is also reflected in injury severity with construction and manufacturing “lost workday” rates—also at their highest levels, 147.9 and 120.7 days respectively. (See page 18.)

“Loss control specialists cannot confine themselves to safety roles, isolated from others in the organization. Instead, they must work hand in hand with line units, human resource professionals and others to achieve quality and competitiveness goals” (Barge 43).

#### TRADITIONAL RESULTS

Research by the National Institute for Occupational Safety and Health (NIOSH) and safety professionals in the private sector continue to document the limited effectiveness of traditional safety approaches. During the 1970s, NIOSH studied management and safety program characteristics in high, low and extremely low incidence-rate companies in order to determine which factors most significantly influenced safety results. The findings clearly showed that “commonly prescribed safety practices relating to safety committees, safety

rules, accident investigations and reporting, and safety promotions were evident in companies with good safety performance as well as in those with poor safety records. These factors, therefore, are not differentiating ones” (“Safety Program Practices”).

The correlation of safety elements to high and low incidence-rate companies (see page 19) indicates that elements typical of traditional programs do not correspond with good safety results. In fact, some elements often perceived as most important, i.e., safety staff and committees, actually have stronger correlations with poor accident results. This suggests that traditional safety organizations (staff-dominated) encourage line managers to abdicate key responsibilities and ignore their critical role in accident prevention. In other words, it’s now “the Safety Director’s job!”

#### CURRENT STRATEGIES

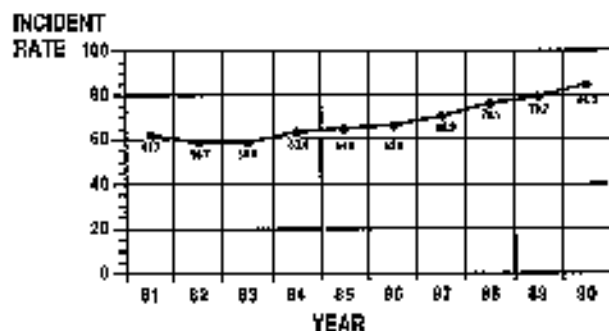
Professor Anthony Veltri, designer of the master’s degree program in safety management at Oregon State University, recently identified industry’s current focus in safety program structure and strategy. In 1988 and 1989, he surveyed 100 safety professionals responsible for their organization’s safety programs to determine the predominant strategies being used.

Veltri’s surveys examined safety strategies currently employed, needs perceived for the 1990s, and reforms deemed necessary to create added strategic value to the businesses they served. His findings confirmed that traditional safety programs continue to dominate the workplace. Veltri identified three distinct safety strategies, with highly traditional strategies comprising the vast majority:

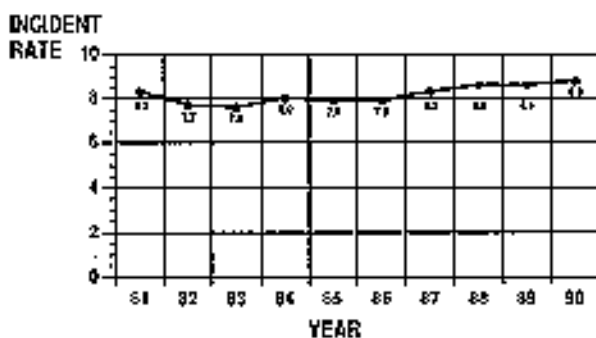
1) **Reluctant Compilers** - 77 percent: This group focuses on regulatory compliance and prefers no substantial safety investment. It pursues traditional inspection activities, with compliance being the key focus of the safety department—not a concern for others. The safety function’s job is to insulate the rest of the organization from compliance problems. This group tends to place blame for compliance demands upon governmental agencies and/or others.

2) **Followers** - 16 percent: This group employs creative technical approaches to safety problems and frequently employs modern management and supervisory practices. The tools and programs they utilize have been developed by others, principally leaders in their industry. This group recognizes a need to “catch up” to the standards set by others, but believes that catching up is

## Lost Workdays



## Total Injuries



simply a matter of doing what others have done before. They fail to recognize that "catch up" activities cause them to remain outdistanced by the rapid pace set by the leaders.

3) **The Leaders - 7 percent:** This group employs truly progressive approaches. They focus on developing distinct functional and organizational capabilities. Their programs add strategic value and build technical capabilities within their organizations. A key characteristic is their commitment to perform significantly better than anyone else in their industry, particularly in areas that senior executives recognize and value highly" (Veltri 149+).

Both the NIOSH studies and Veltri's surveys confirm that industry's predominant safety strategy remains highly traditional: driven by safety elements, segregated within the organization, and focused on regulatory compliance.

### THE IMPACT OF MANAGEMENT

The NIOSH studies also analyzed organization and management factors in the high, low and exceptionally low incidence-rate companies, and found significant correlations between safety results and the core management competencies of an organization. Exhibit 3 (see page 19) presents these results and their correlations to specific organizational and management factors. The study concluded: "Management commitment to safety is the major controlling influence in obtaining success, and overall ... maximally effective safety programs in industry will depend on those practices that can successfully deal with people variables" ("Safety Program Practices").

Recent work by Dan Petersen, noted safety management consultant, has also led him to concur with these findings. He concludes, "We believe probably that there's something having to do with the culture and the climate of the organization that makes the whole safety pro-

gram work. What works in one organization may not work in another" (Sheridan 33+).

A recognition that management culture drives safety results is being identified by many industry leaders. John Thirion of Johnson & Johnson acknowledges, "We know that safety is a clear-cut barometer of organizational excellence. You cannot have an excellent organization that has a lot of accidents" (Minter 17+). Lee Schaller of Dupont Corp. believes, "You have to couple the responsibility for safety with the authority to act. In an industrial enterprise, it is really the line organization that has the authority to act to make the decisions that will effect safety" (Minter 19). John Maher, director of quality improvement for Unocal Corp., is convinced that management involvement is critical to safety improvement. Speaking to Unocal's current Safety Improvement Process, he states, "The manuals are not the essence of the process, it is the people, the organization and the attitude. Without that attitude change, that quality commitment to making it happen in the company, a manual is just another book on the shelf" (Minter 48).

### WHAT REALLY CAUSES ACCIDENTS

In addition to these industry leaders, Hank Sarkis, president of the Reliability Group, a management consulting firm in Miami, is also convinced that management culture is the key to safety results. For the past 10 years, Sarkis has collected accident data and organizational information. This data has been statistically analyzed to identify correlations between accident experience and management characteristics. Sarkis now claims his database is credible and is convinced that workplace safety is more a function of organizational issues and management culture than of safety activities and enforcement. In a presentation entitled

"What Really Causes Accidents," Sarkis identified the "Top 10 Factors" affecting safety results as:

- 1) Cheerfulness of Workplace
- 2) Employee Selection/Placement
- 3) Procedures - Natural/Awkward
- 4) Employee Recognition
- 5) Equipment Safety
- 6) Pleasant/Stressful Workplace
- 7) Job Satisfaction
- 8) Job Challenge
- 9) Role Clarity
- 10) Procedures - Safe/Risky

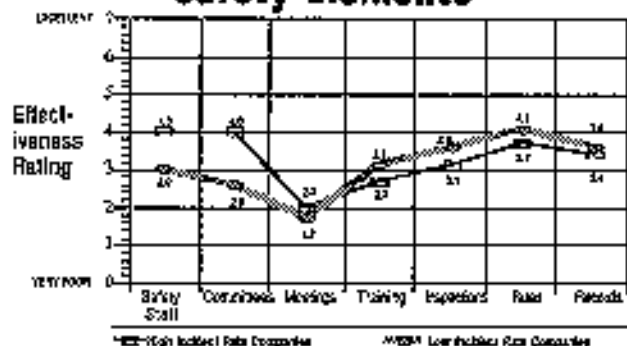
This data again confirms that "safety elements" have only a limited relationship to good results. Why then do most safety programs continue to be traditional in nature? There are four primary reasons:

1. **Lack of Management Preparation.** Lester Therow, dean of MIT's Sloan School of Management, claims, "To be trained as an American manager is to be trained for a world that is no longer there" (Shermerhorn 316). His observation is applicable to management skills in general, but is also appropriate to the lack of safety management preparation available in the curriculums of business schools preparing our future industry leaders.

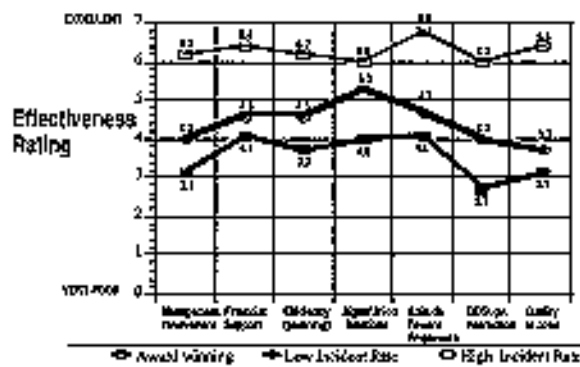
In his book, *Quality, Productivity and Competitive Position*, W. Edwards Deming also identifies this weakness in our management development programs, stating, "In fact, anyone could pass with high marks all the regular courses offered in colleges and universities in business statistics and engineering, yet come off with not the faintest idea about how to improve quality, productivity and competitive positioning" (Deming ii). We can easily add - "safety" - as well!

2. **A "Microwave Mentality."** To understand accident causation is to recognize that the factors involved in an accident are complex, multi-faceted and difficult to identify. Pressures and

## "Traditional Safety Elements"



## "Management (Culture)" Factors



priorities facing managers day-to-day, coupled with a lack of technical preparation, creates a propensity for managers to seek "quick fixes" to safety and health problems. Sarkis recognizes this and has come to believe that "success takes more thinking—failure takes more time" (Sarkis). Most managers, unfortunately, favor the latter.

3. The Lemming Effect. There is a universal belief that the lemming, a small rodent populating the polar regions of the earth, periodically amass in large migrations ultimately leaping to their death in the sea. Even Webster's Ninth New Collegiate Dictionary contains such reference. Researchers, however, confirm no evidence whatsoever concerning such behavior and acclaim it but a myth!

And so it is that we "migrate" to traditional safety. Companies faced with an accident program typically follow what others have done and adopt programs "off the shelf," thus perpetuating traditional safety in the workplace. Bill Cosby once commented, "I don't claim to know the secret of success, but I sure do know the reason for failure—doing what everybody else says to do" (Cosby). And, so it is with traditional safety programs.

4. The Fourth Symptom. John Graham, president of Graham Communication, has identified what he calls "CEO Syndrome"—five symptoms of management ineffectiveness. The "fourth symptom" is a tendency for CEOs to think in the past. Graham holds that "CEOs perceive their job as getting a company shaped up and running smoothly. Once that is accomplished, they conclude it will continue to run smoothly and that being a CEO is basically a reward for a job well done. They stop the clock at a point in the past when the company was in running order. Problems arise when modern day challenges and management controls created in the past are no longer

appropriate" (Graham 6).

This is particularly true in safety. Most programs were developed years ago, founded upon principles out of sync with today's challenges and in serious question as to their original credibility.

Unfortunately, these beliefs are deeply rooted in many organizations and heavily impact the safety results they achieve. A company's ability to improve safety performance is directly related to its ability to change its organizational culture—a process both evolutionary and revolutionary, patterned and predictable. This "Safety Management (R)evolution" is characterized in stages.

### STAGE I—THE SWAMP SAFETY WITHOUT ANY MANAGEMENT PROCESS!

These companies are frequently led by the Tyrant-a-Saurus, a management species that has evaded extinction and still survives in some organizations. William Byham, in his book *Zapp! - The Lightning of Empowerment*, identifies these managers as modern-day dragons, who rule with fear and "Sapp!" employee innovative spirit.

These companies reject responsibility and perceive safety as a burden—a task with no productive value. They accept accidents as a cost of doing business; are autocratic; and have a heavy task focus, with safety frequently compromised to production demands. Their planning process is short-term and reactive; communications are one-way (down) and founded in fear. They employ make-do solutions to equipment and facilities—often unsafe. Minimal employee involvement is allowed in decision making and employee/management relations are adversarial. It's "them versus us!"

These companies have high insurance costs driven by both frequency and severity. Their Experience Modification typically exceeds 1.25 (25 percent worse

than average). They populate the high risk pools and adversely affect insurance rates for their industry. These companies operate in statutory ignorance, often in violation of recognized safety codes. Employee complaints and whistleblowing occur frequently. These corporations become targets of workplace litigation emanating from major injuries, and frequently make national headlines.

Companies mired in the SWAMP remain there until a significant financial crisis (SFC) occurs—normally, an increase in operational costs or losses so damaging (to profits) that management recognizes a problem and declares, "We need a safety program!" With this, the evolution to Stage II begins.

### STAGE II - THE NORM NATURALLY OCCURRING REACTIVE MANAGEMENT!

At this stage, companies implement safety activities without having adequate understanding of their problems or the actions necessary to resolve them. As a consequence, they implement safety programs patterned after "what others have done," i.e., assigning a safety director, creating safety committees and challenging them to solve "the safety problem." They do not recognize "the management problem!"

Line managers typically excuse away accidents, i.e., "It was the employee's fault!" They conflict with the safety officer who they perceive to be a nitpicker looking over their shoulders. Line managers do not recognize their key responsibility for safety and normally embrace quick fixes and "instant-pudding" programs—neither of which work.

Safety programs have high visibility with slogans, campaigns, gimmicks, contests and incentive programs. Managers issue policies, but personally compromise most of them with their behavior, sending a clear message to employees—"Read My Lips!" Pro-

## SAFETY MANAGEMENT REVOLUTION



Changing Organizational Culture



High Pressure Team  
Common Language  
Innovative Employee Behavior  
Language Shifting (Process)

SWAMP

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## SWAMP

(Safety Without Any Management Process)

SAFETY RESPONSIBILITY: Not Recognized/Rejected  
PERCEIVED: A "Burden"

### MANAGEMENT CHARACTERISTICS:

- Accidents are accepted - GO DSA - A Fluke
- Autocratic Style
- Task-Oriented - Professions Compromised
- Planning - Minimal; Reactive - Economic
- Communications - Fear Based
- "Thou Shalt Not Kill" Approaches
- Minimal Employee Involvement/Innovation
- Surber Necessity - Adversarial

### ORGANIZATIONAL IMPACTS:

HIGH INSURANCE COST	EXCESSIVE COSTS	POOR EMPLOYEE RELATIONS	STATUTORY IGNORANCE
FAL - 1.25	Above Avg. Incident Rates	"Bare the User" - Them vs. Us	OSHA Citations
	Safety in Evidence	"Nopezoed" Human Resources Policies	Complaints Litigation



grams are cyclical. They are implemented, last a short time and then vanish.

Activities focus on inspecting out hazards. This process never identifies problems but rather covers symptoms. Line management never buys into these programs. There is, at best, superficial support. Insurance costs in these organizations are average for their industry. Their Experience Modification is 1.00, plus or minus 25 percent.

Excepting but few—the NORM—is where most companies exist and will remain! For a company to advance to Stage III, it must create radical organizational change (ROC), discarding traditional principles and adopting progressive concepts. These become the record-holding companies identified by NIOSH and the leaders identified by Velti.

### STAGE III - WORLD CLASS

In these companies, line management owns and drives safety. Line managers perceive safety as a good business investment with long-term positive returns. Managers believe that accidents are intolerable; they accept no excuses! In these organizations, safety isn't safety; it is organizational effectiveness. The decisions managers make are time-consuming and their planning is long-term, normally three to five years. Responsibilities (both line and staff) are clear. There are shared missions and cooperative efforts.

These companies shun "just add water" approaches. Their employee relations policies are humanistic. Employees are empowered and rewarded, often through gain-sharing. Communications are open, informal. Feedback is encouraged. Methods to produce safety are built into job descriptions and processes. Results are closely monitored. Causes for variations are identified and rectified.

These organizations are "quiet!"

There are no campaigns, flashing lights, bells or whistles; there are simply results superior to all others. Insurance costs are significantly lower than average, with Experience Modifications less than .75 (at least 25 percent better than average). In these organizations, safety loses identity; there are no "safety programs." There are few accidents; there is simply "excellent management."

The inability of most companies to attain World Class performance lies in their inability to create and effectively manage change. They fail to recognize that a business enterprise exists to create change. Peter Drucker identifies this as one of five survival objectives for an organization: "Every business, to survive, must strive to innovate; that is purposeful, organized action to bring about the new" (Drucker 158). John Graham also identifies an organization's inability to create and manage change as clear indicators of impending business disaster.

### Indicators of Business Disaster

1. An inability to make anything new or significant happen (create change).
2. The prevalence of a rear view mirror mentality (the past always sets the pace for the future).
3. A run-for-cover approach to crises (a belief that ignoring a problem will cause it to go away).
4. Follow the leader and never take a bold step (belief in maintaining the status quo) (Graham "Five Indicators" 28).

In occupational safety, change of the magnitude needed to produce successful results will only occur when management and the safety professional recognize the need to cast off traditional approaches and force change in corporate culture.

Management must:

- Encourage ideas and reward innovations. Managers must seek out

those with the ideas, interests and perseverance to pursue nontraditional paths and turn failures into success, as Art Fry did by transforming a failed adhesive formulation into one of 3M's most successful business products: the Post-it note.

- Demand Superman performance. In his series, "Creative Thinking," Mike Vance directs managers to refocus their values to "the top line": those central values of fairness, ethics, human relations and organization that determine "the bottom line" — market share, productivity and profit. A proper focus on the top line will cause bottom lines to fall into place. The message for safety is: What we do — will determine what we achieve. We must do the right things!

- Encourage leadership. An unfortunate reality is: Management does not make a difference in occupational safety and health — or at least has not yet! The American workplace needs leaders with vision, empowerment skills and a willingness to cause change. Max Depree, chairman of the board and CEO of Herman Miller Inc., recognizes that "leaders, in a special way, are liable for what happens in the future rather than what is happening today" (Shermerhorn 295). Industry must identify its "safety leaders" and encourage them to innovate, experiment and implement those philosophies that will produce positive, lasting results.

- Empower the people. Managers must revisit their working relationships with employees. There is an emerging realization that the next "re-unification" will occur in American management and will link employees with their minds. Empowerment, teamwork and participative management must overcome commonly held beliefs that safety programs fail for one simple reason — employees! This mind set must be replaced with the recognition that employees fail for one simple reason — management! The safety professional,

## The NORM

(Normally Occurring Routine Management Values Most Are Today -- And Will Remain)

SAFETY RESPONSIBILITY: Not Understood (STAFF)  
PERCEIVED: A "Cost"

### MANAGEMENT CHARACTERISTICS:

- Accidents are expected away - fault based
- Responsibilities - Unavoiding / Unable to solve
- Is not quite sold - waiting to go full way (what's easy)
- Likes instant posting (particularly wanted)
- High visibility - many labels - into results
- Employees "hear" the orders, "see" the visibility gap, "do" nothing
- Significant line / Staff authority conflicts
- Programs / Campaigns - scheduled
- Rewards (only) measured
- Low "accountability" looking.

### ORGANIZATIONAL IMPACTS:

BLOOD CYCLES	SYMPTOMS (DISFUNCTIONS)	COMMITTEES	Q.T. PROGRAMS
E.M. 1.0% 25%	Inspection Heavy Find a Fault Repetitive Corrective Problems	Scheduled - Wood / Cornell Each Session	Supv. Ignor EE's Resist

## WORLD CLASS

(Where Some Can Be in the Future)

SAFETY RESPONSIBILITY: "Line Management" Owned / Driven  
PERCEIVED: Good Business Investment

### MANAGEMENT CHARACTERISTICS:

- Accidents are "unthinkable" - there are no "excuses"
- Safety is "everybody's Management Responsibility"
- Decisions - immediate, simple and direct
- Planning - long term - 5 to 5 years
- Responsibilities and expectations - clearly defined
- No "gap" and/or "just add water" approaches
- Employee owned / "right of living"
- Communications - informal, open, encouraged
- Efforts "clearly measured" - and responded to

### ORGANIZATIONAL IMPACTS:

QUIET	INVISIBLE	INTEGRATED	EQUAL
	E.M. < .75	"Safety is our identity" "There is no program" "There is good management" "There aren't (many) accidents"	

in turn, must recognize and accept an equally challenging role in this revolution. Safety professionals must step up to the challenge that management will place upon them to become, above all, "managers."

For too long, safety professionals have hidden behind a Dangerfield Complex. Upon receiving their certification, they wonder when the respect of executive management will follow (Bielli). It won't! "Participation among top management ranks should not be viewed as a right. It must be earned through responsible performance. When the safety and health professional becomes concerned with promoting the cost-effective use of organizational resources, it will be further empowered through membership among top management ranks" (Burk 46+).

World Class effectiveness will only become a reality when all management—executive, operations, line, staff, and supervisory—fully integrate safety responsibility into the organization's mainstream. This will not result from safety programs that are superimposed upon the organization, but only when safety is fully accepted as an integral part of the organization and its mission.

Are we close to achieving this? Unfortunately not! The findings of Veltri, NIOSH and Sarkis confirm a strong attachment to traditional safety. Evaluations by this author further confirm the continuance of this bond.

In September 1991, 24 managers participating in a Nationwide Insurance National Accounts Safety Seminar in Columbus, OH, completed a Safety Management Assessment profiling their organizational "culture" in safety leadership, vision, integration, communications and human relations. A similar assessment was completed by 118 participants at a March 1992 American Society of Safety Engineers (ASSE) Professional Development Conference in Syracuse, NY.

Both groups determined their predominant culture to be traditional. In the nationwide assessment, 21 percent perceived their safety culture as SWAMP, 71 percent traditional and 8 percent progressive World Class. The ASSE group profiled their predominant cultures as 8 percent SWAMP, 69 percent traditional and 23 percent World Class.

By evidence of these assessments, occupational safety has not yet expressed its readiness to accept those changes necessary to become part of the American management revolution. To be successful, managers and safety professionals must commit to a progressive operational philosophy of "Never leave well enough alone, because the future is too important to let happen by itself" (Primavera Systems). The safety profession needs a (R)evolution!

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