

THE ARCHITECTURE OF SAFETY EXCELLENCE

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Originally Published as May 2000 cover/feature of 'Professional Safety' magazine

There's a growing current of dissension within our ranks that, if unchecked, will impede rather than advance the true objectives of our profession. One need only read the "Letters to the Editor" or "Readers' Pulse" columns of leading professional journals to fully appreciate the extent of this polarization. Faction leaders are digging in and fortifying their positions in defense of their "one best way" of attaining safety excellence. It's interesting to watch the innuendoes and, at times, direct shots being exchanged between the various camps; (i.e., compliance vs. programs, education vs. engineering, technical vs. management, and behavioral versus cultural). It has become clear, there is little consensus on what need be done to achieve safety excellence. The result of these clashes is a growing state of confusion and frustration within the profession. The demands for greater results placed upon practitioners have increased while the pathways to success have become less clear. To succeed, we must broaden our understanding and soften our resistance to change.

In The 59 Second Employee: How to Keep One Second Ahead of Your One Minute Manager, Rae Andre and Peter Ward of Northeastern University, tell the anecdotal tale of an isolated civilization who toiled for decades to discover the ideal form of social government. After much debate and many years of failed experimentation, the wise elders ceased their efforts and, adopted "The Law of the TANOBWAY" — recognition that There Ain't No One Best WAY! (Andre)

It's critical that safety practitioners recognize that success isn't an "or" issue (one strategy or another), but rather an "and" issue (one strategy and another ... and another, and another)! Safety excellence isn't the result of a singular strategy. There are no universal answers.

Peak safety performance results from multiple strategies designed and applied across a broad spectrum of issues and risk factors within an organization. Safety excellence is the outcome of a strategy continuum; a strategic architecture, which addresses the regulatory, technical, engineering, organizational, behavioral, managerial and cultural aspects of an organization.

To put safety excellence into perspective, this paper will:

1. Construct an Architecture of Safety Excellence (show what excellence looks like);
2. Identify the components of safety excellence (identify the excellence strategies); and
3. Define the process of attaining safety excellence (outline the steps, sequence and key linkages).

The pursuit of safety excellence requires that we first address the most critical question of our profession: "Why do accidents occur in the workplace?"

And the answer has become abundantly clear: “At-risk behaviors” — what people do! Behavior isn’t the next level of safety strategy; it’s the ultimate level. Behavior is the critical element, which must be addressed to achieve safety excellence! Seventy years of research and observation ranging from Heinrich’s early hypothesis in the 1930s to DuPont’s time tested successes of today confirm that unsafe behaviors are involved in most all accident occurrences — involved in ... not the causes! The core question remains: Why do employees do what they do, act unsafely, and have accidents?...what ‘causes’ at-risk behavior?

The vast majority of managers fail to seek the true answers to this critical question. Instead, they rely comfortably on the all too common excuses of: employee carelessness, inattentiveness, disregard for procedure, and laziness (i.e., employee as the problem). This thinking (or lack of) presents the greatest obstacle to safety success. “An organization will never improve its process, if it believes its people are the problem!” (Manule)

The harsh reality concerning safety is that poor performance has good reasons, most of which are inherent in the planning, design, implementation, maintenance, administration and modification of the process — not individuals! Only through the elimination of these process causes (the good reasons for poor performance) can an organization attain safety excellence.

Getting to these good reasons requires a comprehensive change strategy; a strategy which addresses both process and people. Rad Smith, co-author of the QS-9000 quality standards, identifies three levels of change that can be pursued in an organization; each having a progressively greater impact on operational outcomes and results. These are:

- Level 1: Corrective Change** - fix what’s broken — the most common type of change;
- Level 2: Continuous Change** - improve what is — the most accepted type of change; and
- Level 3: Creative (Innovative) Change** - doing something totally different — the most profitable type of change! (Paton)

As we build the following seven strategies into architecture of excellence, keep these change levels in mind. Try to assess your organization’s current position, and define the change level and target strategies needed for greater success.

SAFETY PROGRAM STRATEGY (Attitudes, Awareness & Training): “Think safe”!

The first foundational strategy is that of the safety program. This strategy is based on the premise that safety results will improve by changing the attitudes of employees. This strategy attempts to improve employee safety awareness through policies, procedures, meetings, training, and disciplinary policies. Tactics most frequently employed under this strategy include development of manuals, procedures, rules, committees, policy statements, orientation, training, retraining, remedial training, and ultimately progressive disciplinary programs. Research on training effectiveness, however, has confirmed limited impact on accident rates and costs. A comprehensive study by the U. S. Dept. of Energy on selected sites actually confirmed an inverse relationship (Crites). And, most recently, the National Institute of Occupational Safety and Health (NIOSH) concluded from it’s Summit on Safety Training that there is no clear research confirming the effectiveness of training on safe performance.

COMPLIANCE STRATEGY: “You will be safe ... or else!”

The second (and legally necessary) strategy is that of regulatory compliance. This strategy is based on the premise that safety results will improve by changing the level of statutory compliance in an organization. This strategy focuses on changes in conditions, facilities, equipment and the work environment in accordance with minimum regulatory requirements. Tactics most frequently pursued under this enforcement strategy include facility inspections, compliance audits, walk-throughs, and programs addressing minimum requirements and action levels subject to citations, fines and penalties.

TECHNICAL STRATEGY: i.e., it’s cheaper to bend steel than backs.

The third safety strategy is that of “technofix” or engineering strategy. This strategy is based on the premise that safety results will improve by changing the level of safety engineering and physical safeguarding in the work place. This strategy emphasizes automation, ergonomics, work methods, workflows, worker/machine interfaces, mechanical advantage, safeguarding, and process design. Tactics frequently pursued under this engineering strategy include ergonomic task assessments, workstation redesign, workflow analysis, ergonomic devices, tool design, and engineering safety into new processes and/or retrofit safeguarding on the shop floor.

“If you always do what you’ve always done, you’ll always get, what you’ve always got.”
-Stephen Covey

These three strategies, in composite, form what is commonly referred to as “traditional safety” (Three “E’s” of Safety: Education, Enforcement, and Engineering). Dave Johnson in his Industrial Safety & Hygiene News’ 1998 White Paper confirmed the continued dominance of these traditional strategies in today’s industry practice: (Johnson)

<u>Strategy</u>	<u>Reported Usage</u>
• Program	- 81 percent (Education)
• Compliance	- 74 percent (Enforcement)
• Technical	- 75 percent (Engineering)

Unfortunately, this continued emphasis on traditional strategy hasn’t had significant impact on national incident rates or workers’ compensation costs over time. Plotting Bureau of Labor Statistics (BLS) national all industry incident rates and National Council of Workers’ Compensation Insurance (NCCI) annual workers’ compensation costs shows that maintaining a flat (or slightly declining) incident rate progressively drives costs upward!

Safety programs (awareness/training) educate workers, but only have minimal impact on safe work behaviors. Compliance strategies keep an organization legal but don’t necessarily lower loss costs. And, technical strategies, although based on sound engineering principles, are often limited in their ability to retro fix obstacles and impediments that can’t be engineered out of the process, or existing facilities and equipment.

These three strategies represent the predominant and current state of the art (and science) of safety in most organizations, i.e., much emphasis placed on training, enforcement and engineering, resulting in flat incident rates and escalating workers’ compensation costs. Bottom

line, these are not wrong things; they are just not sufficient for achieving better results and lower loss costs. As the earlier referenced ISHN Readers Poll confirmed, we are highly efficient (doing things right), but minimally effective (not doing the right things).

Safety Excellence organizations have recognized the need to pursue Level 3 change in safety strategy — doing totally different things. They have shifted from staff administered, antecedent-driven programs comprised of rules, policy, SOPs, and regulations to line owned, consequence-driven management practices and processes. They have embraced the truth concerning safety excellence, offered (yet still not uniformly accepted) by D. A. Weaver in the 1960s - this truth:

“Excellent organizations frequently achieve exceptional safety results in the absence of any visible safety program, while...excellent safety performance cannot be attained in a generally poorly managed organization.” (Weaver)

Weaver’s premise, I believe, has finally come of age; “safety really is nothing more than a by-product of doing right things right.” (Weaver) Safety is embedded in the business process.

Guided by this truth, world-class organizations are bridging the safety performance gap by setting in place a second set of organizational strategies founded upon values, which forge a safety culture. Building off this second foundation, progressive organizations are constructing the organizational strategies critical to success: Culture (values), Organization (structure), Performance Leadership (consequence delivery), and Organizational Behavior strategies, which link with, and enable the traditional strategies to work successfully.

SAFETY CULTURE: *You can’t simply manage your way out of the way you behave.”* (Covey)

The fourth and foundational strategy of excellence is that of cultural safety. This strategy is based on the premise that safety results will improve if an organization identifies, assesses, and strengthens its values and leadership of safety.

“As I grow older, I pay less attention to what men say. I just watch what they do.”
— Andrew Carnegie (Quotes)

Safety culture deals with the “unwritten rules” (clarified by action) that determine if safety really is important in an organization. Safety culture is forged by what executives do (their decisions and actions) more than by what executives say (their policies and proclamations). Tactics most commonly pursued to strengthen safety culture in organizations are: visioning sessions, mission and purpose definition, and values clarification ... and, above all, commitment to high visibility executive participation in the process.

In his book Values-Driven Safety, Don Eckenfelder emphasizes that one’s actions are a moving picture of one’s beliefs. In this book and his summary article: “It’s the Culture, Stupid” (Occupational Hazards, June 1997), he presents a convincing case that culture predicts results. He contends that an organization’s basic beliefs and values (its culture) impacts its decisions which, in turn, define systems and structures which, in turn, determine manager practices, which directly shape employee behaviors and influence work attitudes, and ultimately, all of which determine the performance outcomes (results) an organization achieves. Or as Stephen Covey has said: “Every organization is uniquely designed to exactly produce the results it achieves.” Where executive values are weak, downstream organizational roles, relationships, decision-

making criteria, trust levels, and management behaviors will compromise safety, and ultimately high losses and costs will be the predictable outcomes.

ORGANIZATIONAL STRATEGY: Safe by design ... organizational design!

The fifth safety strategy is that of Organizational Safety a/k/a the safety management process. This strategy is premised upon the belief that safety results will improve if an organization changes those management systems, structures, and processes, which integrate (enable), or isolate (starve) safety in its operations. This strategy addresses the “roles, relationships, procedures, job descriptions and organizational charts” of the company. Tactics typically pursued under this strategy include creating safety policy and procedure, defining roles, responsibilities, and relationships, budgeting processes, goal setting, developing action plans, measuring and creating accountability for results.

Brooks Carder in his work associating safety strategy to TQM principles emphasizes the critical relationship between organizational structure and operational results: “By focusing only on individual behavior,” he claims, “the system potentially ignores at least 85% of the factors controlling safety.” (Carder) Based on this premise, an organization that effectively designs safety into its systems and processes through organizational design, job descriptions, communications channels, and performance systems will positively impact manager practices, employee behaviors, and ultimately safety results.

PERFORMANCE LEADERSHIP “Safety follows the leader!”

The sixth safety strategy is that of Performance Leadership, in behavioral literature sometimes referred to as “performance management” (although I personally see this as more of a leadership issue). This strategy is based on the premise that safety will improve if an organization changes its management methods and consequence delivery practices (from less punitive to more reinforcing). This strategy addresses the inherent deficiencies of hierarchical “command and control” management practice. It recognizes that how employees perform, (safe or unsafe) is heavily influenced by how managers manage (positive or negative). In order to optimize safe behavior, managers must create an environment that encourages, recognizes, and rewards “safe” performance. If managers want more safe performance, they must be willing to recognize and reward safe performance more. This means moving from autocratic styles to participative styles, from hierarchical structures to team environments, from manager ‘spans of control’ to employee empowerment, and from progressive discipline to reinforcing (motivating) practices. Scott Geller sums this up best: with his belief that: “Managers must act employees into thinking differently.” (Geller)

BEHAVIORAL STRATEGY: “Safe is how we do business!”

Finally, we arrive at the seventh and perhaps most critical safety excellence strategy that of — Organizational Behavior change. This is the “keystone strategy,” the strategy which locks all others together into a high performance structure, which when subjected to the pressures and stresses of the work environment strengthens rather than fails. This critical strategy is premised on the belief that an organization will improve its safety results by changing organizational behaviors throughout an organization. True behavioral change strategy addresses what ‘all people’ do in an organization, not just what front-line employees do. This is the ultimate safety excellence strategy as ‘what people do’ encompasses:

- Education and training - What Human Resource personnel do;
- Statutory compliance - What Legal, and Regulatory Affairs do;
- Safeguarding and process design - What Engineers do;
- Values and leadership - What Senior Executives do;
- Systems and structures – What line and staff managers do;
- Performance Leadership - What supervisors do; and ultimately
- Organizational Performance – what employees do.

Safety excellence is a function of individual and organizational behavior, both of which are a function of the organization's core values ...its culture; that force which determines what really is important in the organization, and which causes everyone to pull together to drive safety through the process.

Safety can't be positioned in any one place in an organization; it must be fully integrated within and assumed by all functions. It must build partnerships with all functions, and provide managers with resources and solutions in their assigned areas of responsibility. This is the "critical success factor" discovered and embraced by the DuPont Corporation in their long journey to world-class safety leadership. "Safety responsibility (command authority) must always be a line management responsibility. The safety function must always be a support, never a decision-making authority." (Thomen)

As this Architecture for Safety Excellence indicates, there is a formula for safety success - a formula that combines all the critical success strategies, and it is:

SAFETY SUCCESS = CEO^u

Where:

- C** = The Safety Culture (values and leadership) of the organization
- E** = The Safety Elements (Education, Enforcement & Engineering).
- O** = The Safety Organization (safe designed into operations)
- u** = YOU! (the ultimate power of success)-The Force of Excellence

For the past 70 years, business has focused almost exclusively on the "E" (elements) in this equation; the traditional strategies of Engineering, Education and Enforcement. And, for the most part, has mastered these quite well. The Architecture of Safety Excellence proposes that it's now time to work on the 'excellence strategies' of culture, organization, leadership, and organizational behaviors — the true accident sources in an organization. You are the ultimate power of change in your organization. You must become the architect of safety excellence for your organization's future success.

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