Safety-Performance Consulting Partnership at CN Railway—Engaging System-wide Stakeholders to Transform Safety Culture

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Safety professionals today champion continuous improvement in the safe performance of the organizations we serve, this in the context of ever-tighter cycle times, ever-higher output rates, and ever-changing workforce populations. Post- 9-11-01 requirements of the newly-minted Department of Homeland Security place awesome 24/7 demands on our discipline. As always, Safety's most visible failures—catastrophic, misleadingly quick to the uninformed eye—are vulnerable to the currents of public perception and the vagaries of political agendas. And ironically, Safety successes in increasingly complex performance improvement efforts—for example, movements to just-in-time peer observation teams, close call reporting, and safety rules revision—have rightly led organization leaders to rely on the function as an expert process partner. So it goes.

In a way, this paper is a call to pile it on: we[*] would offer that even as safety professionals work to huge responsibilities with unwieldy systems in constant view of regulators and the public, they have the opportunity like no other department to introduce, nurture, and spread long-term organization culture change. Further, based on our shared experience, we would suggest that partnership between Safety and performance consultants—colleagues whose jobs and skill sets identify and close gaps in human performance using multiple solutions, with varied stakeholders, over strategic periods of time—is a high-payoff strategy for advancing workplace culture change strongly.

[*] Please note that because Bob is a full-on safety professional and Julie a full-on performance consultant, "we" refers to both professions. In the case study section, we reflect upon our shared experience through a third-person lens.

Our paper illustrates one such partnership with a case study of the collaboration between CN's U.S. Region Safety and Risk Management functions and the Hile Group, a workplace safety and performance consultancy. The case study focuses particularly on CN U.S. Region's revision of its safety rule book.

Why Workplace Culture Change through Safety?

When we say "workplace culture change," we mean the process of transforming from one framework to another the way organization systems and people relate to each other, think, and labor together. Such change is the workplace equivalent of social change, with one example being, say, the Civil Rights Movement here in the United States. Within safety today, culture change roots into relative degrees of shared authority, systems thinking, equality, open communication, mutual accountability, and proactivity. Interestingly, these roots run in parallel with core competencies performance consultants seek to create in culture change efforts wherever they go, no matter the department with which they are working.

What makes Safety such a desirable point of entry for workplace culture change? Safety as a working discipline enjoys the precursors for authentic cultural transformation noted in Figure 1 below. What other organization function offers a comparably fertile environment for such work?

Figure 1: Workplace Safety Precursors to Culture Change

- Seen as a barometer for larger organization culture by most audiences, inside and outside organization
- Lively, around-the-clock concern affording continuous opportunities for application
- Organization-wide relevance and application
- Levels the "playing field," with the sanctity of every person's life and limb the same, regardless of title or tenure
- Invites intrinsic motivation and commitment by being fundamentally personal, individual, people-focused, relationship-based, and home-linked
- Forces cross-craft, cross-location, cross-title negotiation and dialogue
- Provides easy comparisons of culture change interventions with more common, flavor-of-the-month fare
- Generates continuous, concrete, capturable data for assessing baseline and post-intervention performance results
- Can drive compellingly high Return on Investment (ROI) dollars—$80K saved by the prevention of one back injury is a real attention getter with virtually all audiences, showing that safety is plain, good business

Performance interventions that properly move organization systems toward "sustainable safety excellence," as Dan Petersen calls it, develop in their participants core knowledge, skills, and abilities that at least enhance, and in some cases are vital to, workplace culture change. See Figure 2 for a close analysis of these core competencies. Please also note that the wide range of

skills listed below equip safety process change agents to engage effectively with blended strategies like those recommended by the Organization Performance Factors analysis within the CN case study to come.

Figure 2: Culture Change Core Competencies Developed During Sample Safety Performance Improvement Strategies

Performance Improvement Strategy		Core Competencies for Culture Change	
Job Safety Briefings Peer-To-Peer Interventions In Unsafe Acts	⇨	• Peripheral perception • Situational awareness • Relationship building • Team communications	• Planning • Problem solving • Check for understanding
Peer-To-Peer Intervention (Tap On The Shoulder)	⇨	• Preventative focus: *before* nonconformance and incident • Opportunity to dispel myths and misperceptions • Personal commitment that is in the "muscle"	• Conflict-into-opportunity • Speaking truth to power • Providing just-in-time consequences for non-performance
Safety Stand Downs	⇨	• Demonstrated commitment to top priority • Performance concerns addressed in real time • Team problem solving for performance improvement	• Conflict-into-opportunity • Performance feedback • Resetting organization and personal self-talk
Peer Observation And Closed-Loop Safety Processes	⇨	• Comparison of *desired* with *actual* performance in daily practice • Strategic opportunity to observe and address outliers in real time	• Training reinforcement • Manage by walking around • Data gathering and evaluation
Capture And Distribution Of Leading Performance Indicators	⇨	• Model impact of performance on operations and organizational health • Reinforce that working effectively is *seen* and *felt* throughout the organization, not taken for granted • Celebration of success as important as responsiveness to incident/injury	• Measuring, documenting, and sharing performance indicators • Organization-wide ownership of successes, areas for improvement • Decision making and goal setting based on information available
Multiple Cause Incident Analysis	⇨	• Focus on prevention • Identification of performance trends • Bias for multiple, systemic solutions to root causes • Development of "thinking paths"—tracing a result back to causes and contributing factors • Identification of various stakeholders' action steps	• Systems thinking • Decision making • Problem solving • Performance gap analysis • Goal setting, monitoring, and evaluation • Understanding: incident = systems failures
Close Call Reporting	⇨	• Focus on prevention • Creation of safe spaces for candid communication of the "truth" on the ground • Focus on learning, rather than discipline/punishment	• Change agency • Sidelong leadership • Speaking out about systems issues • Identification of performance trends

Performance Improvement Strategy		Core Competencies for Culture Change	
Collaborative Safety Rules Revision	⇨	• Consensus building • Cross-craft, cross-title, cross-location negotiation • Rule writing: mandatory vs. recommended	• Visioning • Listening • Influencing others • Personal empowerment • Leadership

By providing a rich context for culture change and ample opportunity for people to develop the skills requisite to such transformative work, Safety can position itself to influence overall organization culture powerfully for the better. In drawing safety advocates from all organization venues to tackle performance improvement processes, the function can draw upon basic shared values to nurture abiding professional relationships and lively change agency that filter back out to the larger workforce once the project is complete. Seeds planted, culture change stands a good chance of really taking hold.

The Safety Professional-Performance Consultant Connection

The safety professional-performance consultant connection and the potential for partnership therein extend from four areas of professional experience:

- Shared values
- Parallel history and current transition
- Mutually-beneficial areas of specialized knowledge, skill, and ability (KSA)
- Overlapping areas of KSA. More on each of these below.

Shared Values

It may be that the similarity which brings us most simply together is the value system which informs our work: safety pros and performance consultants are typically people who care about *people*. Both professions are charged with the nurturing and protection of the human element—people's quality of performance and work life and the return of their bodies and minds, healthy and whole, to families and friends at the end of each work cycle. Over time both partners have come to focus on human behavior—what people *do*—as the center post of organization performance. We promote and sometimes require coherent and continuous improvement of work processes across systems. We are most challenged by and inclined to do our best work in the context of messy, multi-causal, multidimensional complexity that promises a suite of strategically-blended performance solutions.

Parallel History and Current Transition

The promise of collaboration between safety professionals and performance consultants is one that has been coming for longer than we might expect. An analysis of the evolution of each of these professional disciplines shows striking congruence. This shared path leaves us remarkably similar in our values, ways of relating to our organizations, and general dispositions.

Historically, practitioners in both functions have been drawn in large measure from field operations personnel. Our formal training has occurred post-appointment, around the edges of our "real work." Safety professionals' and performance consultants' specialized job skills have often grown through on-the-job experience and mentoring by co-workers. Our functions have

been charged with tracking and reporting data to demonstrate federal rules compliance, analysis of data for cause of nonconformances, the development of policy, the scheduling and oversight of training, interface with regulatory bodies, and provision of various resources necessary to completion of job tasks, all of which are important responsibilities. Large organization systems have defined (and ultimately isolated) Safety, like the HR/Training departments where human performance got its start, as sole steward of particular performance—in Safety's case, safe work conditions and environments; in HR/Training's case, training interventions. Our measures of organization progress relative to goal, driven heavily by regulations, was quantitative, non-performance based, limited in scope, and lagging or downstream. Responses to unsatisfactory results were characterized by one-size fits all, repetition, reactivity, and punishment. Fixes were focused on function outputs—how many trained, counted, caught—rather than on performance.

In addition, the system in which both Safety and HR/Training have labored has employed:

- Job descriptions and performance expectations anchored in conventional support-services thinking even as their disciplines have been "professionalizing," transitioning to more systemic, integrated interventions and outputs.
- Organization perceptions that our functions are primarily administrative, thus irrelevant to front-end business development and strategy, and, correspondingly, exclusion from initial discussions framing performance-based issues.

As might be expected, our respective attitudes and behaviors within this context sometimes constrained our ability to move people into robust and long-term performance improvement. See Figure 3 below to sample some of these self-limiting behaviors.

Figure 3: Self-limiting Safety and HR/Training Behaviors

- Focusing on what people know rather than on what they do
- Overloading our plates with activities not related to performance results
- Not visiting the field to learn the operation and build knowledge, credibility, and relationships
- Withholding specialized information: "You leave safety/training to us. Just give us a call."

Happily, again like HR/Training and in roughly the same time frame, Safety has seen a marked transition toward process- and behavior-based performance improvement. Beginning in the mid 1970's, safety professionals posited that conditional and regulatory approaches to safety had ultimately restricted progress toward reductions in incident and injury. Dan Petersen (1975) sounded a much-needed wake-up call. He challenged the safety profession to consider the larger workplace system in its incident analyses, adding that the behavior of people at all organization levels was a major force in safety failures. Petersen urged:

Safety professionals should ask, “Why does the behavior occur?” and to seek out chains of human error which accumulate to produce incident.

- Smaller safety staffs should involve supervisors and employees actively in safety, urging that supervisors be held accountable for safety just as they are for other parts of the operation.
- Top management’s commitment to safety must be made explicit, in plain terms.
- The safety process must be flexible, un-cookie-cutter, context-sensitive, and focused on culture.

A raft of safety research followed, calling for alternatives to quantitative assessment, strategic audits of work locations, documentation and analysis of close calls, the posting of comparative data at work sites, the celebration of performance success, and peer intervention in unsafe acts.

Today, most major companies have at least dabbled in behavior-based safety. Like safety pros, performance consultants press for direct reporting to resource-controlling Operations officers. And both disciplines have come to understand that their expertise and job responsibilities must be integrated into Operations, the economic work engine of the organization, in order to ensure relevance and maximum effectiveness.

Mutually-Beneficial Areas of Specialized Knowledge, Skill, and Ability (KSA)

When safety professionals and performance consultants work together, we model precisely the kind of dynamic give and take we ask our colleagues to strive for in the interest of employee-focused, continuously improving safety processes. We each acknowledge the other’s vast, specialized KSAs and familiarize ourselves with them so as to make the most of our partnership, without feeling compelled to “be all things.”

Safety colleagues in many organizations have provided performance consultants with fruitful sites of practice, beginning with access to senior decision makers in whose personal and professional networks Safety has a reliable berth. Safety has also shown performance consultants how to:

- Integrate key functions effectively—and respectfully—into Operations.
- Build our knowledge of the business of business.
- Gain entry into day-to-day, systemic business processes.
- Detect and work observable indicators of safety performance (“What does success look like?”), laying bare the concrete arena of safe work practices.
- Steward and wield statistics related to the high costs of injury to build a credible, persuasive business case.

In collaborating with safety colleagues to drive Frequency Severity Indices down and quality processes , performance, and morale up, performance consultants have modeled much in the way of consulting theory and practice, cognitive psychology and facilitation practices, transfer of learning theory and practice, and performance-driven models of evaluation and authentic assessment. Performance consultants have shown safety professionals how to:

Push for full understanding of the root causes of unacceptable performance before taking action. Resist over-training and avoid lost time, effort, and budget by investing instead in carefully-targeted alternate performance improvement interventions.

Develop transfer of learning scaffolds by full project stakeholder groups to cement people's commitment to doing what they have said they would do Before, During and After defined interventions. See Figure 4 for a template of Hile Group's transfer of learning scaffold.

Figure 4: Transfer of Learning Scaffold

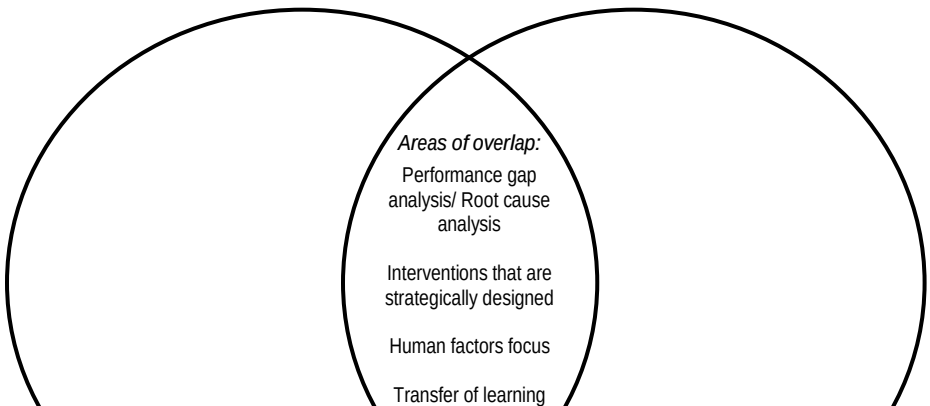
Stakeholder	What's In It For Stakeholder (WIIFS)	Actions Before	Actions During	Actions After	Barriers to Actions/Success	Counter-measures

Overlapping Knowledge, Skills, and Abilities (KSAs)

In times of transition we all need support and validation. Even as partnering has pointed up the differences between the professional safety and performance consulting skill KSAs, it has confirmed for us both important, basic tenets of performance management. Specifically, performance consultants appreciate the parallels between our performance gap analysis and safety's root cause analysis, between our human factors focus and safety's behavior-based safety.

Safety and performance pros have together called for blended interventions that trigger and sustain deep improvements in performance. We have learned much together about how to improve the odds that learning initiated in non-classroom settings is transferred effectively back to the job. We have implemented a simple, six-question tool—based upon the Rummler and Brache model illustrated in play at CN later in this paper—to help people recognize and analyze their work choices and actions on the spot. See Figure 5 for a summary of representative parallel and overlapping KSAs for both groups.

Figure 5: Safety Professional-Performance Consultant Mutually Beneficial and Mutually Validating KSAs



Performance Consultants offer:

- Background in theory and practice regarding consulting, transfer of learning, and assessment
- Organization systems orientation
- Facilitation and cognitive psychology practices

Safety & Health Professionals offer:

- Return on Investment (ROI)
- Credible, ready access to senior leadership
- Performance indicators
- Organization-wide integration

Safety professionals and performance consultants can serve stakeholders—customers, coaches, and organizational allies—in the project of improving workplace performance. Consider the following case study, in which we relate our experiences collaborating on the revision of CN U.S. Operations safety rule book. Please note the we will shift to third person here, referring to ourselves by name as third parties for clarity's sake.

The *L.I.F.E.* Book: CN Railway U.S. Operations' Safety Rule Book Revision Process

> "The *L.I.F.E.* book is a breath of fresh air…. It is one thing that brings us, that forces us, to come together." —Gordon Trafton, Senior VP CN, U.S. Region

Background on CN U.S. Operations

CN is the fifth largest Class One railroad in North America. Its U.S. Region employs 6,700 people in management and four professional crafts: Clerical, Engineering, Mechanical, and Transportation. The U.S. organization runs on approximately 10,122 miles of track.

The CN follows a disciplined Operating Plan that requires precision in op*erations throughout all aspects of its transportation network. It relies on its people to understand and execute the Operating Plan each and every day in order to be safe and succeed in achieving goals.

The CN is the North American continent's most geographically connected railroad with headquarters in Montreal, Quebec, Canada and Canadian Operations that span the country from east to west. It links Canada, Mexico, and the United States and serves ports in the Atlantic, Pacific, and Gulf of Mexico.

In 2000, CN began expanding its U.S. territory by acquiring Grand Trunk Western Railroad in Michigan and Ohio, the former Illinois Central, which spans the length of the Mississippi River, and the former Wisconsin Central railroad. CN's U.S. Operation wanted both to advance its core

safety culture in the ways described in the previous section and to unify its new locations and associations within that culture. Each newly acquired property voiced its commitment to operating as safely as possible and each was protective of the processes and programs that had ruled operations before the assimilation into the CN. The Frequency Index of the U.S. Region showed a 2.89 (114 recordable injuries) for the former Illinois Central and a 4.32 (83 recordable injuries among a far smaller work force) for the former Grand Trunk.

By 2001, the CN was reorganizing these railroads away from small, familial operations and toward CN's larger safety culture. The CN endorsed an aggressive commitment toward 0 incident and 0 injuries, and these new properties had room for improvement. The CN was dedicated to improving the acquired properties' safety numbers as quickly and as safely as possible using its programs and processes rather than continuing to allow these locations to operate independently.

The U.S. Region's AVP of Safety and Regulatory Affairs for the CN, Bob Keane, wanted his diverse stakeholders to unite around a unified safety effort. Keane envisioned the safety culture that was needed to unify the new locations within CN and recognized the need to partner with an external source that could pick up where his skill set ended. Knowing that he could not strategically effect that culture change alone, he contacted the Hile Group, seeking the results of its well-known safety rule book revision process. The Hile Group's revision process was aimed at producing:

- Credible review of current safety rules
- Consistent, clear application to specific operations
- Clarification of mandatory versus recommended work practices
- Rules that are distinct from procedures
- Simple, accessible, user-friendly text and layout
- Bridge to at-home safety, wherever appropriate
- "Buy-in" to rule books from both management and unions

Performance Gap Analysis Rooted in Root-cause Analysis

The Hile Group performance consultants began by gathering information about the current situation at CN to uncover what had inspired Bob Keane and his safety function colleagues to seek out a safety rule book revision process. In response to Hile Group's "Let's talk about what's going on in your shop that makes you think a safety rule book is in order," performance consultants and CN's safety professionals became a project Planning Team and stepped into partnership. The performance gap analysis conducted by the consultants pushed Keane and the safety team to articulate the types of changes and success indicators they would need to see in order to improve safety and performance.

A thumbnail sketch of conclusions drawn during the performance gap analysis, the six-question adaptation of Rummler and Brache, follows in Figure 6.

Figure 6: Results of Safety Rules Portion of Performance Gap Analysis at CN U.S. Operations, 2000

Performance Expectations (Do People Know What They Are Supposed To Do?)	Gap: People did not always know what they were supposed to do—it shifted due to inconsistency, among supervisors, new-hire orientation facilitators, and safety rule documents. Non-enforcement of safety rules redefined expectations as noted in "Performance Feedback" below.
Necessary Support (Do People Have What They Need To Do What They Are Supposed To Do?)	Gap: People did not have what they needed. Instead, they we exposed to multiple rules documents, inconsistent supervisor performance, sometime production pressure, and co-workers who modeled and coached unsafe work practices.
Appropriate Consequences (What Happens When People Do What They Are Supposed To Do?)	Gap: Consequences did not reinforce positive safety performance. Safety rule documents did not clearly tell people what to do or what would happen if they did not do what they were supposed to do.
Performance Feedback (How Do People Know Whether They Are Doing What They Are Supposed To Do?)	Gap: Inconsistent feedback was given regarding violations in safety rules. Some supervisors did not give feedback on individual performance proactively; they often lacked the skill to do so. See "Knowledge/ Training/Education" below.
Knowledge/Training/Education (Do People Know What They Need To Know To Do What They're Supposed To Do?)	Gap: Supervisors did not know the skills needed for safety leadership. Field associates lacked skills in reaching their peers. All involved lacked skills in performance gap analysis and differentiating safety rules from other kinds of safety info.
Capacity (*Can* People Do What They Are Supposed To Do?)	Adequate: People were capable of working safely.

Adapted from Rummler and Brache, 1995.

The results of the performance gap analysis generated these insights around organization climate, management/leadership performance, and safety rules:

- U.S. associates were uncomfortable because of the continuous reassignment of key senior leaders to accommodate organization growth. The associates were often wary of management, not uncommon to such a strong union environment.
- As new people came into the expansive CN fold from small, emotionally close environments, CN managers were eager to demand immediate respect, open communications, and standardization, which often felt rigid.
- The old, industry-wide supervisory habits of using fear and intimidation to control behavior were still prevalent in areas across the organization.
- Some managers focused only on overseeing operations and expected HR/Training to deal with "people" issues and Safety to handle safety.
- Before Bob Keane and Hile Group began the safety rule book revision process, the CN U.S. Region had eleven safety rule documents in play. These eleven documents contained inconsistent rule quality, tone, scope, depth, clarity, accuracy, currency, accessibility, and varied in the degrees to which they focused specifically on safety.
- The documents presented unclear distinctions among policies, programs, procedures, work practices, training content, rules, and regulations.

- Some safety rules forced noncompliance, requiring people to work in physically impossible ways.
- Many safety rules were charged emotionally and politically, written in the "blood" of colleagues to prevent recurrence of incidents from which workers had suffered injury and worse.
- Managers and associates in the field inconsistently interpreted, enforced, and complied with the numerous "out-to-get-you" rules.
- Loopholes found in the documents were often the source of legal arguments by CN attorneys, plaintiff's attorneys, and union officials in courts of law.
- New hires moving from job orientation into the field were often admonished by co-workers to put their safety rules away because "that's not the way we do things out here in the real world."

Safety Rule Book Revision Process Plan

The Hile Group safety rule book revision process would create grassroots support for ownership of a practical, shared, and empowering safety movement. The whole-system engagement was precisely Keane's intention. The safety pro and performance consultants' values were aligning.

Keane's initial thinking in performance data, the research done by the Hile Group, and the analysis done by the Planning Team confirmed that the broad reach and strategic blend of diverse interventions of the Hile Group's particular safety rule book revision process was the solution to CN U.S. Region's performance.

Hile Group prepared Keane and his colleagues for the dynamic changes to the CN U.S. Region's safety culture that the rule book's process and high-quality books would produce. In constructing the realistic, accurate, and accessible rules the team longed for, the consultants would build intense, positive, working momentum among co-authors from the field, management, and safety. Associates throughout the workforce would gain long-term critical engagement of what makes a safety rule a safety rule as well as what is required for the continuous improvement of safety practices.

CN would have to redefine its framework for communicating safety expectations to people. This key change would require the CN to confirm with mandatory safety rules the situations when railroaders were to follow orders and with a new convention, "recommended practices" when they were to decide whether a job would be most safely done as recommended or following a practice they knew to be as safe or safer. These new "recommended practices" would call on associates to assert their informed, professional judgment in deciding the safest way to work.

The revision process would require Hile Group performance consultants and a cross-section of organizational stakeholders to review and revise all eleven safety rule books and test the rules with a thorough safety rule sorter. A cross-craft "Core Team"—made up of stakeholders from all functions, management and unions, and representative geographic locations and job classifications—would negotiate "Core Safety Rules," which would be applicable to all associates and make key decisions about how the project would engage with the rest of CN U.S. Region. Craft-specific "Satellite Teams" would coordinate and lead the writing of Safety Rules, and Recommended Practices would be reviewed with comment toward consensus by other crafts

that were also affected by the rules. Once the Core and Satellite Teams had developed solid drafts, the books would be “shopped” with CN U.S. Region colleagues in the field for accuracy, currency, enforceability/ability to comply, and clarity of language. Field colleague recommendations would be considered by the Core Team, with appropriate changes being made before the books went to layout and production. See Figure 7 below for clarification of the revision process flow:

Figure 7: Safety Rule Book Revision Process Overview

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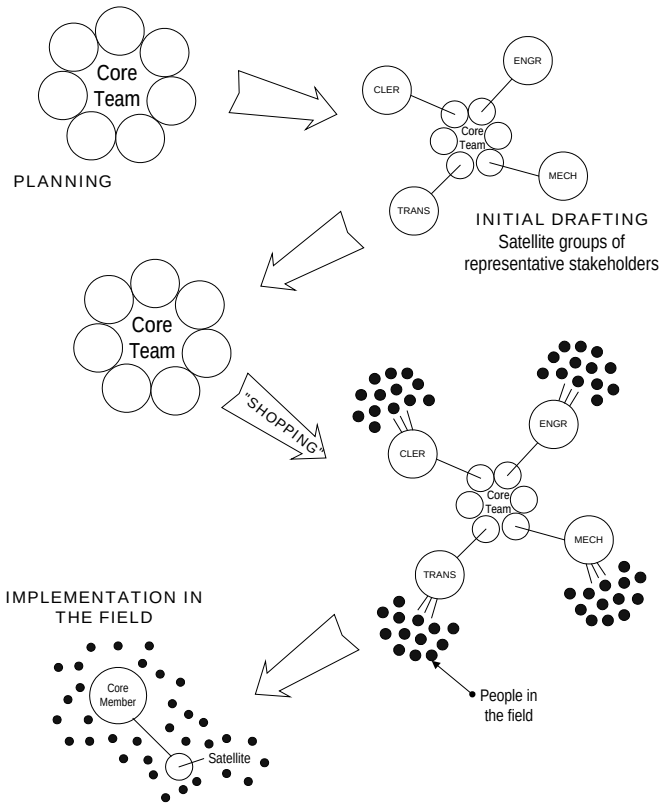

Rule Book Revision Project—Outputs and Results

After four Core Team meetings, five sets of Satellite Team writing sessions, and a vigorous shopping process, four craft-specific safety rule books—Clerical, Engineering, Mechanical, and Transportation—went to press in June 2002. Performance consultants and S&H worked tightly in tandem and draft rule books were touched in some way by more than 500 CN colleagues during the process. The title of the books was a strong leading indicator of fundamental change underway in CN U.S. Region's safety culture. The new books were called *Live Injury-Free Everyday*, the *L.I.F.E.* books, coined by Charlie Scholes—a Core Team member and machine operator from Effingham, Illinois.

Revision process-generated indicators of forward movement in safety at CN included fundamental changes in Core and Satellite Team members. They dropped the longstanding attitude of "Us" vs. "Them" and maintained constant pressure on both themselves and Management to keep the project a top priority. The teams were highly intense and dedicated, consistently working well past quitting time in meetings, stewarding many levels of detail, maintaining a commitment to consensus, and there was a sense of professional courtesy noted by most drop-by stakeholders. Core Team members who began the process with the hope of gutting the safety rules soon asserted the *need* for rules that would support raised safety standards in

some areas and increased regard for the well-being of the associates working there. Senior union representatives in politically-sensitive positions put their reputations on the line to endorse the revision process and educate the field about the new safety culture.

The *L.I.F.E.* books reflected transformative change:

- CN U.S. Region's initial 900+ safety rules evolved into 18 Core Safety rules with between the 62 Craft-Specific Safety Rules negotiated by the Transportation Department and the 235 agreed upon by the Engineering Department, whose function manages significantly diverse safety-related operational details.
- The Clerical and Mechanical Departments' Craft-Specific rule numbers fell within that range.
- Most job requirements were the same from one craft to another, but had different safety standards, which were made consistent across all crafts.
- "Gotcha" rules, those enforced most often as post-incident evidence of non-compliance rather than as proactive job tools, were eliminated from all *L.I.F.E.* books.

Within CN, the safety rule book revision process was recognized with the President's Award, which is given to organization initiatives that improve performance with system-wide reach and impact. The project Core Team got together at the invitation of CN Corporate to discuss how other endeavors within CN could benefit from the lessons learned about culture change from the rule book revision process.

The Challenge of Evaluation

Clear correlations between safety rule book development and implementation and safety outputs are difficult to confirm. The relationship between the safety rule book revision process and success indicators is complicated by the number of corrective actions that immediately followed the launch of the *L.I.F.E.* books. What we *do* know, however, is that CN implemented capital improvements, job procedures manuals, education, and technological enhancements close upon the heels of the newly-launched *L.I.F.E.* books. Because follow-up actions and process clean-up were byproducts of the Core and Satellite Teams' information management work, it is clear that the safety rule book revision process was, in some part, a catalyst for these other system-wide, safety-focused endeavors.

Other certainties include that CN U.S. Region's safety rule book revision and its *L.I.F.E.* book were the highlight and hallmark between the high-hazard reorganization years of 1999 and 2003. During this time the Illinois Central Railroad, which had foreseen a potential spike in incidents and injuries due to dramatic organizational change, experienced only a mild 1.5% increase in its Frequency Index (FI); the Grand Trunk saw a 45% improvement in FI and was recognized by the FRA for Continuing Safety Improvement; and the Wisconsin Central saw a 22% FI improvement. Costs associated with derailment were reduced by 50% during this time period.

Other representative lagging performance indicators for the revision process include:

- Acknowledgement of the *L.I.F.E.* books by rail industry safety professionals as an industry best
- Consistent correlations between strong safety committee performance and injury reduction for the work groups they represent

- More willing and open communication between management and craft employees (including union leadership), as evidenced by the initiation of a streamlined "Resolution Process" for union-management-Federal Railway Administration negotiation of organization issues
- Supervisors engaging with craft employees' using L.I.F.E. to resist what the employee perceived to be unsafe activity to work the problem not the person
- Costs associated with derailment reduced by 50%
- Reduced litigation costs related to personal injuries

Consider as a performance impact data point the ferocity of personal commitment in the following letter, written by a Core Team member encouraging his brothers and sisters to participate in the shopping phase of the 2000-2002 revision process:

> The people in the [rule book revision] committee process truly do want the new Revised Safety Rules to be a tool for making our jobs easier and safer. We have deliberately attempted to eliminate rules and language that have perpetuated the "GOTCH YA" mentality that we have come to expect from the old safety culture.
>
> My personal excitement comes from the fact that ***for the very first time*** the railroad has included the Union in on the process. We have looked at every rule in both the IC & GT Safety Rule Books. We have created a draft for you to look at that was developed with one thing in mind: changing the way we perceive and the company administers safety.

Seven Years Later: *L.I.F.E.* Book in Review

In mid-2004, CN U.S. Region pulled the rule book revision Core Team back together again, adding representatives of more newly-acquired properties to the mix, to revisit the first edition *L.I.F.E.* books. One new Core Team member noted that the *L.I.F.E.* books were "one of the most impressive things about CN. A real shot in the arm for the small guy who's just been bought." There were minimal requests for change to the original *L.I.F.E* texts. But even so, Core Team alumni were challenged to have new team members open up issues battled through in 2000 by the First Edition team. "I feel a responsibility to protect the integrity of work done by hundreds of my colleagues who were involved in the first *L.I.F.E.* book," 2000 Core Teamer, David Lustig mused. Even though the review effort was light on change requests, it quickly turned to assimilation of the new contributors into the process and, by extension, into the CN safety culture.

Today, Bob Keane and his CN U.S. Region colleagues continue to benefit from their safety rule book investment. Because they view *L.I.F.E.* as a living, breathing document, it has grown with the organization over the years. Periodic comments and recommendations for the safety rule books from the field are monitored to ensure that employees' needs continue to be met and that the work environment at CN continues to operate safely. In addition, *L.I.F.E.* aligns well with recent initiatives at CN including the development of Guiding Principles in the management tool *How We Work and Why*, as well as the culture-change focused *ABC—Antecedents, Behavior, and Consequences*. Members of the Core and Satellite Teams, seven years later, continue to be

viewed as Ambassadors of the Safety Culture Change at CN; these committed people have supported the books through their entire journey.

Bob Keane credits the books for exceeding expectations, “They have stood the test of time in providing a very functional book that provides solid safety ‘rules’ and practical and functional ‘Recommended Practices’ that are used each and every day in the field.” He has not seen the need to change *L.I.F.E.* because of its continued service, as is, to CN’s people.

Conclusion

CN U.S. Region’s movement toward sustainable safety culture initiated by the safety rule book revision process continues apace today. One of the most promising outcomes of the effort is the safety professionals and performance consultants who collaborated during those months of revision—of literally “re-seeing” the way the organization articulates its safety rules and holds CN employees at all levels accountable to them. These colleagues shared the stress of the political risk that comes with initiating culture change. They helped one another shoulder an immense work load. Their unrelenting personal commitment to the process as a means of improving the health of CN U.S. Region as a whole caused them to redefine their roles, expand their professional skill sets, broaden their scope of practice, and envision a the future that still today stretches clear to the horizon and, perhaps, even a little beyond.

As two of the professionals from the heart of that process, we see that it’s true: even as the pressures on the safety profession and its practitioners have, perhaps, never been higher, so too have the opportunities to generate long-lasting, systemic change never held greater promise. In fact, we might offer that safety professionals—whose job it is to create systems and processes which protect people from harm—have a moral responsibility to steward the evolution of organization culture toward systems thinking, collaboration, relationship and coalition building, and proactivity. This is not incidental, nice-to-have work. It is the essential mission of those of us who earn our way as safety professionals and performance consultants.

Bibliography

Peterson, Dan. *Safety management: A human approach*. San Francisco: American Society of Safety Engineers, 2001.

Peterson, Dan. *Techniques of safety management: A systems approach.* Chicago: American Society of Safety Engineers, 2003.

Rummler, G.A. and Brache, A.P. *Improving Performance: How to manage the white space on the organization chart* (2nd ed.). San Francisco: Jossey-Bass, 1995