
Imagine...

5000 Annual Deaths and 4 Million Injuries that Never Happened...

FailSafe WORKPLACE®

The FailSafe Workplace® Sustainability System*
Inspiring World Class Safety through Human Performance Technology

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This publication is the result of the collaborative efforts of RPT Safety & Health Services, Inc. management team.

Please feel free to post this on your blog or e-mail it to whomever you believe would benefit from reading it.

Thank You



The FailSafe Workplace® Sustainability System*
Inspiring World Class Safety through Human Performance Technology

Public Seminar Schedule

Boston MA

September 23, 24, 25, 2009
Sheraton-Boston Hotel

Kissimmee, FL

October 28, 29, 30, 2009
Radisson Resort Parkway
at Celebration

The FailSafe Workplace®, based on the principles of Human Performance Technology, is a cost effective, formal, systematic sustainability strategy designed to transform your safety operation into a well-oiled, high reliability system. The strategy simultaneously targets latent and embedded process and culture gaps, mitigates risks through low cost/high impact interventions producing World Class safety outcomes. FailSafe Workplace® tactics and tools integrate easily with any existing compliance, beyond compliance, or VPP program to produce sustainable results.

The FailSafe Workplace® is the only formal sustainability strategy available for in-house application.

Visit our website, www.rptlifeline.com, for course program and registration details.



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Our job as consultants is bittersweet. Generally, when the office phone rings and our expertise is requested, we know that in all likelihood someone was either injured seriously or, worse yet, killed on the job...

Early in 2008, we fielded a call from a local company that had recently experienced a workplace fatality. Apparently, the worker had entered a confined space and was immediately overcome by toxic gas. A second employee entered the same confined space to rescue his co-worker and was also overcome. According to company managers, the dead worker was highly experienced and had been employed by this company for a number of years. He was well-trained and had a healthy respect for the risks he encountered in the course of his work. Dan had a wife and three children. The family had just bought a new home and the children were settling into their new school nicely. Life was idyllic.

Both management and workers were devastated over Dan's death. To help co-workers cope with the tragedy, the company enlisted the services of a local trauma team. And then management called us to audit their safety program to ensure nothing like this ever happened again. As consultants, we asked lots of questions of both management and workers in an attempt to identify gaps and root causes within their safety system. We set up re-training in confined space entry and rescue. We educated management about the essential nature of safety culture and suggested possible interventions. But nothing we did would bring Dan back.

At the end of one of our consulting sessions, I turned to the frontline supervisor and asked him why he thought this fatality occurred.

"Human error," he said. "The guy simply made a mistake."

In 2007, 5657 U.S. workers simply made a mistake and died on the job

—U.S. Bureau of Labor Statistics

The frontline supervisor was right. When accidents and injuries occur, it's almost always the result of a human blunder, a slip-up, an oversight, a misstep, or lapse.

However, the frontline supervisor was also shortsighted. "Human error" is a superficial explanation for disaster. Often, "human error" is actually triggered by either one or a combination of defects in the workplace context.



Let us share with you the true tale of a frustrated safety manager. This hard-working, capable manager experienced a rash of injuries involving ladder usage. The incidents occurred in quick succession, as if the malady was contagious.

"We just trained our workers on ladder usage and last year we had no recordables," shouted the manager. "Why are these accidents suddenly happening????"

Frustrated in his attempt to prevent injuries and control workers' compensation costs, the manager temporarily banned ladder usage! Incidents like these, that appear random or uncontrollable when an existing safety program is essentially sound, are believed impossible to prevent.

So most safety managers chalk random incidents up to "acceptable" risk, and consider resulting expenditures simply an unavoidable cost of doing business. Accidents of this type challenge an operations' ability to achieve program sustainability and compromise the bottom line.

It is true that attempting to mitigate "acceptable" risk with traditional analytical tools is too expensive and difficult.

However...

THERE IS NOTHING ACCEPTABLE ABOUT "ACCEPTABLE" RISK!!!

"Acceptable" risk is truly a myth because there does exist a cost effective, systematic, easy way to address risks that produce random accidents and injuries, ultimately thwarting program sustainability.



INTRODUCING...

FailSafe WORKPLACE®

The FailSafe Workplace® Sustainability System*

The FailSafe Workplace® Sustainability System integrates fully with your existing, enabling safety program, and acts as a surveillance process for identifying embedded, latent risks that lie hidden within your operation. It's latent change that triggers human error and thwarts sustainability. The system is proactive, rather than reactive, preventing injuries before they occur.

Wait a moment, please, hear us out. This is not another “flavor of the month.”

The FailSafe Workplace® was designed based on the principles of Human Performance Technology (HPT), a recognized academic discipline that has been studied and applied in workplaces around the world for almost 40 years to generate improvement. Here's a sample of industries where HPT has been used successfully to solve organizational problems.

- ▶ The Royal Canadian Mounted Police
- ▶ The U.S. Coast Guard
- ▶ Small Entrepreneurial Enterprises
- ▶ Medium and Large Corporations
- ▶ Education Institutions
- ▶ Utilities
- ▶ The IT industry
- ▶ The Public Sector
- ▶ Healthcare

HPT is a complement to process centered improvement initiatives like Six Sigma or Lean. HPT's focus is on human capital development and achieves results by structuring the workplace for human psychological advantage.

HPT is somewhat known within the Safety Industry however, its potential as a formal, systematic improvement effort has never been fully leveraged.

If HPT is so terrific, why haven't more managers heard about it? Because HPT tools have been designed to be used primarily by performance consultants.

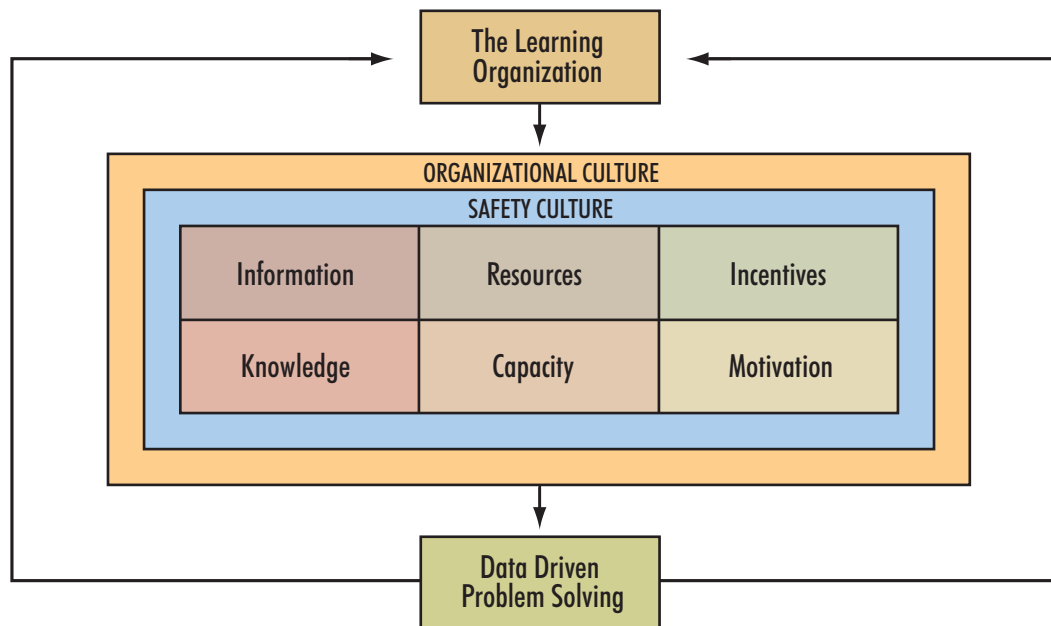
Until now...

The FailSafe Workplace® Sustainability System is intended for in-house use, and the array of 30 tools is meant for easy management application.

Here’s how the system works:

The FailSafe Workplace® Sustainability System is comprised of three distinct mechanisms:

1. The Learning Organization
2. The FailSafe Workplace® Six Dimension Matrix
3. Data Driven Problem Solving Process



1. The Learning Organization

The improvement cycle is initiated through the Learning Organization, the symbolic intellect of the safety system. A subtle transformation of the traditional Safety Committee, the Learning Organization consists of representatives from all key organizational stakeholder groups who are connected to the company safety function. Periodic interface among stakeholders serves to increase the collective safety IQ and wisdom of the overall organization.

Arie de Geus (head of Shell’s strategic planning group) described learning as the only sustainable competitive advantage.

How does the traditional safety committee actually differ from a Safety Learning Organization? Traditional safety committees operate on a checklist principle and develop new policies on “lessons learned.” The Safety Learning Organization is deeply cognitive and focus is anticipatory, consequential, analytical, critical and creative, proactive vs. reactive.

The Learning Organization functions as the research arm of the operation, continuously in pursuit of unknown defects that trigger human error, which cause “out of the blue” type accidents.

Pursuit of the unknown is a common characteristic of all high reliability organizations (HRO’s).

2. Six Dimension Matrix

Equipped with a 360° perspective of the site specific safety system, management periodically benchmarks its current system against The FailSafe Workplace® Sustainability Matrix (the ideal system), seeking embedded, latent gaps.

Collected data assumes two forms: quantitative and qualitative: Mixed methods data provide findings that are both broad and deep. Quantitative data demonstrates “WHAT” is occurring, whereas qualitative data reveals the “WHY” behind the what.

In recent years, more researchers in basic fields (psychology, sociology, linguistics, public administration, organizational studies, business studies, health care, urban planning, educational research, program evaluation, and policy analysis) have shifted to qualitative inquiry.

Safety leans toward quantitative measurement. However, if you want to truly root out the real causes underlying human error, it is more efficiently analyzed through qualitative means.

Qualitative data are a source of well-grounded, rich descriptions, and explanations of processes.

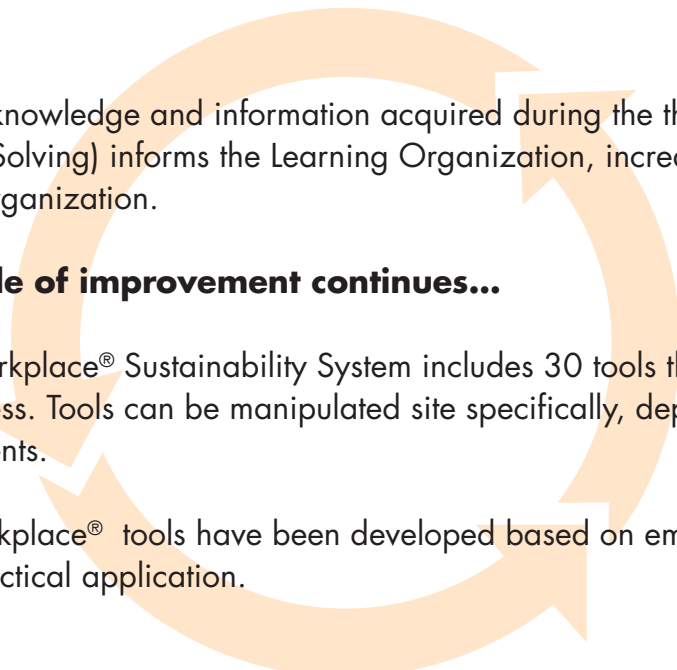
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3. Data-Driven Problem Solving

Through a simple method of gap analysis, opportunities for improvement are highlighted and measured. A follow-up root cause analysis indicates the origin of the problem. Analysis findings are suggestive of possible solutions, and an implementation plan is devised.

Formative and summative measurement of performance ensures effectiveness and movement toward system balance and sustainability.

Typically, safety operations collect performance measures at the behavioral level. Isolated safety behaviors, however, are rarely predictive of performance. The FailSafe Workplace® enables you to measure the correct set of behaviors that have been empirically shown to contribute to sustainable performance and are meaningful of future outcomes.



Ultimately, new knowledge and information acquired during the third phase (Data-Driven Problem Solving) informs the Learning Organization, increasing the collective wisdom of the organization.

...And the cycle of improvement continues...

The FailSafe Workplace® Sustainability System includes 30 tools that automate the improvement process. Tools can be manipulated site specifically, depending on your particular requirements.

All FailSafe Workplace® tools have been developed based on empirical research and designed for practical application.

The bottom line benefits derived from integrating The FailSafe Workplace® with your existing program are certainly impressive.

Historically, HPT related implementations like The FailSafe Workplace® have empirically demonstrated an 8:1 average return-on-investment.

The FailSafe Workplace®:

- ▶ Targets process and culture improvement simultaneously, creating an efficient balance between safety and production.
- ▶ System outcomes are measurable, thereby preventing the tendency to purchase isolated culture interventions.
- ▶ Reduces the reliance on training as the sole solution for performance problems, significantly lowering the cost of improvement.
- ▶ Interventions are characteristically low cost/high impact.
- ▶ Ensures adherence to changing compliance regulations, eliminating the potential for OSHA fines.
- ▶ Tools are simple to use, the cost and time involved in identifying acceptable risks is minimal compared with traditional and complex risk assessment hazard analysis methods.

Through application of The FailSafe Workplace®, we discovered that the company where Dan died had a number of latent risk issues. The chart on the next two pages demonstrates the results of our audit and assessment. The areas in red were identified as risk issues.

**FailSafe Workplace® Six Dimension Matrix:
Workplace Context Dimensions**

WORKPLACE CONTEXT		
Information	Resources	Incentives
Are worker/management communication patterns bottom-up and top-down?	Are written programs finely detailed?	Are ad-hoc, informal incentives provided for safe performance?
Have new workers been properly apprised of policies, goals, and objectives?	Are safety reviews of new projects thorough?	Have consequences been established for consistently sub-standard performance?
Is individual performance feedback delivered appropriately and respectfully?	Are new hazards properly identified and abated or mitigated?	Is there an element of positive peer pressure relative to safety?
Do all managers at all levels set a good safety example for workers?	Are job hazard analyses properly updated as projects change?	Are workers empowered to make decisions without fear of reprisal?
Do workers have easy access to Measurement Data, Guides, Standards, Procedures, and Reference Sources?	Is the worksite inspection schedule maintained?	
	Is equipment maintenance performed routinely?	
	Are performance measures conducted at the individual and sub-unit level?	
	Do workers have ready access to their frontline supervisor?	
	Is there a procedure in place for collecting near miss data?	
	Have working conditions deteriorated?	

**FailSafe Workplace® Six Dimension Matrix:
Worker Dimensions**

WORKER		
Knowledge	Capacity	Motivation
Are workers trained at least to the level of compliance?	Does the company hire and promote based on experience?	Do managers and workers share similar safety mental models?
Are training outcomes evaluated?	Is job candidates required to complete a safety profile assessment?	Do workers exhibit high safety self-efficacy?
Is a strategy in place to ensure skill transfer to the job site?	Do individual performance reviews include safety competencies?	
Do managers take advantage of informal learning opportunities?		

Despite its nearly incident-free past safety record, this company had significant gaps embedded within its system that undoubtedly led to the fatality.

If your operation lacks a cost effective, formal, systematic sustainability strategy, safety is luck dependent. Feel free to print the job aid on the next page and duplicate to identify potential sustainability issues that may exist within your own safety program.

WORKPLACE CONTEXT		
Information #1	Resources #2	Incentives #3
<ul style="list-style-type: none"> <input type="checkbox"/> Are worker/management communication patterns bottom-up and top-down? <input type="checkbox"/> Have new workers been properly apprised of policies, goals, and objectives? <input type="checkbox"/> Is individual performance feedback delivered appropriately and respectfully? <input type="checkbox"/> Do all managers at all levels set a good safety example for workers? <input type="checkbox"/> Do workers have easy access to Measurement Data, Guides, Standards, Procedures, and Reference Sources? 	<ul style="list-style-type: none"> <input type="checkbox"/> Are written programs finely detailed? <input type="checkbox"/> Are safety reviews of new projects thorough? <input type="checkbox"/> Are new hazards properly identified and abated or mitigated? <input type="checkbox"/> Are job hazard analyses properly updated as projects change? <input type="checkbox"/> Is the worksite inspection schedule maintained? <input type="checkbox"/> Is equipment maintenance performed routinely? <input type="checkbox"/> Are performance measures conducted at the individual and sub-unit level? <input type="checkbox"/> Do workers have ready access to their frontline supervisor? <input type="checkbox"/> Is there a procedure in place for collecting near miss data? <input type="checkbox"/> Have working conditions deteriorated? 	<ul style="list-style-type: none"> <input type="checkbox"/> Are ad-hoc, informal incentives provided for safe performance? <input type="checkbox"/> Have consequences been established for consistently sub-standard performance? <input type="checkbox"/> Is there an element of positive peer pressure relative to safety? <input type="checkbox"/> Are workers empowered to make decisions without fear of reprisal?
WORKER		
Knowledge #4	Capacity #5	Motivation #6
<ul style="list-style-type: none"> <input type="checkbox"/> Are workers trained at least to the level of compliance? <input type="checkbox"/> Are training outcomes evaluated? <input type="checkbox"/> Is a strategy in place to ensure skill transfer to the job site? <input type="checkbox"/> Do managers take advantage of informal learning opportunities? 	<ul style="list-style-type: none"> <input type="checkbox"/> Does the company hire and promote based on experience? <input type="checkbox"/> Is job candidates required to complete a safety profile assessment? <input type="checkbox"/> Do individual performance reviews include safety competencies? 	<ul style="list-style-type: none"> <input type="checkbox"/> Do managers and workers share similar safety mental models? <input type="checkbox"/> Do workers exhibit high safety self-efficacy?

“Acceptable” Risk Case Study #1

A 34-year old worker’s hand was severely damaged by sharp rotating blades when he reached into a dust extraction unit to clear a possible blockage. Apparently, the unit was missing its safety guard and, although the equipment was more than ten years old, a risk assessment of the human/machine interface had never been performed.

Identify the embedded risks that contributed to this accident.

INFORMATION #1 The missing safety guard hadn’t been reported, indicating a communication breakdown between management and workers.

RESOURCES #2 An essential process was overlooked.

INCENTIVES #3 Production over safety was subtly rewarded.

KNOWLEDGE #4 Formal training failed to transfer to the workplace.

WORKPLACE CONTEXT

INFORMATION #1	RESOURCES #2	INCENTIVES #3
KNOWLEDGE #4	CAPACITY #5	MOTIVATION #6

WORKER

“Acceptable” Risk Case Study #2

A Hispanic male tree trimmer was killed when he was sucked into the intake chute of a gas powered wood chipper. The wood chipper had an automatic safety shut-off, located on the top and both sides of the feed chute, however it may have either been disabled or damaged.

Identify the embedded risks that contributed to this accident.

INFORMATION #1 A language barrier may have been at the root of this fatality.

INCENTIVES #3 Production over safety was subtly rewarded.

KNOWLEDGE #4 Formal training failed to transfer to the workplace.

CAPACITY #5 Ethnic and cultural factors that can potentially compromise safety. A recent study of blue-collar Hispanic workers revealed that many are eager to meet management’s expectations, even if they are unrealistic, for fear of losing their jobs.

WORKPLACE CONTEXT

INFORMATION #1	RESOURCES #2	INCENTIVES #3
KNOWLEDGE #4	CAPACITY #5	MOTIVATION #6

WORKER

“Acceptable” Risk Case Study #3

A laborer was screwing together parts of a chair, and rather than working on the ergonomic surface designated for such tasks, he assembled the unit in his lap, ultimately stabbing himself in the leg with the screwdriver.

Identify the embedded risks that contributed to this accident.

INCENTIVES #3 Lack of extrinsic rewards and consequences is thwarting worker safety motivation.

KNOWLEDGE #4 Formal training failed to transfer to the workplace.

WORKPLACE CONTEXT

INFORMATION #1	RESOURCES #2	INCENTIVES #3
KNOWLEDGE #4	CAPACITY #5	MOTIVATION #6

WORKER

The mark of high reliability organizations lies in their ability to anticipate latent and embedded risk preemptively. Anticipatory action enables an organization to reduce risk to levels below what is traditionally believed feasible and practical.

Developing the capability to manage for sustainability provides one additional important benefit. As The FailSafe Workplace® is connected to both the core mission of the business and the business bottom line, you will learn to speak the “language” of executive management and hopefully earn your place at the boardroom table. By positioning safety as sound business strategy and a competitive advantage, you can successfully preserve your budget and staff during slow economic periods.

Most of all however, safety is about people—saving lives and preventing injuries. Whenever someone asks us to describe The FailSafe Workplace®—we reply confidently...

Imagine...

5000 Annual Deaths and 4 Million Injuries that Never Happened...

About the Authors

Donna Cangelosi Crossman, Ph.D. holds a degree in Education, with a specialization in Training and Performance Improvement from Capella University. RPT's breakthrough methodology, The FailSafe Workplace® Sustainability System, is an award-winning innovation and outcome of Dr. Crossman's dissertation research. In 2009, the International Society for Performance Improvement (ISPI) recognized Crossman's research endeavor with a Distinguished Dissertation Award. Her workplace safety focus involves culture building and improvement. Dr. Crossman also wrote and self-published a book for parents of teen drivers, *Sixteen Is Too Young to Drive*. Crossman was also lead author of an article that recently appeared in the June 2009 article of Professional Safety entitled "Sustainable Safety Excellence through Human Performance Improvement." Dr. Crossman is secretary of the Eastern Chapter of the ASSE and president of RPT Safety & Health Services, Inc.

Richard M. Crossman, CSP, OHST, founded RPT Safety & Health Services in 1982 and boasts 35 years experience in the fields of safety and industrial hygiene. He is RPT's technical safety expert and has extensive experience in hazard identification, evaluation, and control. Mr. Crossman's work in safety earned recognition at both General Electric Company and Lockheed Martin Corporation. Most recently, he chaired a Lockheed Martin Committee on Domestic Terrorism. Crossman also served as Fire Chief at Knolls Atomic Power Laboratory in Niskayuna, NY, and was a volunteer firefighter for 27 years. While a volunteer, he served two terms as Fire Commissioner for the East Glensville Fire District, Glensville, NY. For 15 years, Crossman administrated and taught the National Safety Council's point insurance reduction program at Knolls Atomic Power Lab and is currently a HazMat instructor at Schenectady County Community College, Schenectady, NY. Mr. Crossman is Vice-President of RPT Safety & Health Services, Inc.

Julie E. Lovely, MBA, adapts RPT's performance improvement strategies to meet client business needs. With a background in business management, Ms. Lovely also helps companies plan, organize, budget, and measure their safety change initiatives and strengthen the link between safety performance and the bottom line. Lovely holds an entrepreneurial MBA from F.W. Olin Graduate School of Business at Babson College.