

Using Safety Audits as a Leading Indicator

Anthony R. Schiavi P.E., C.S.P., A.R.M
Boston Globe
Boston, MA

Introduction

Safety audits conducted by the supervisory staff is just one of the tools an organization can use as part of a safety process in order to control work related incidents and related costs. This is a perfect leading indicator that is both measurable and observable in terms of identifying unsafe safety behaviors and/or unsafe conditions.

In order to obtain an understanding of how safety audits work and their impact in our organization, you need to have an overview of the Boston Globe from an historical safety perspective. The Boston Globe was founded in 1872. We have 12 unions with over 2,200 employees. The supervisors are also in a specific union although they are considered management. We merged with the New York Times in 1993. The company is a newspaper publisher categorized as a medium manufacturing facilities with delivery, mailroom packaging operations, pressroom and associated editorial, advertising and support functions. Circulation is 250,000 daily and 350,000 on Sunday with a time sensitive product that changes every day that creates production, quality and safety pressures on a daily basis.

In 2000 our self insured worker's compensation costs were projected at over 6 million dollars with future years at over 10 million dollars. Our injuries were about 50% musculoskeletal in nature with 75% of our worker's compensation costs from MSD's. Worker's compensation abuse was an issue. Management was not engaged or accountable. We had real injuries with employees being hurt. Safety Culture was weak at best.

The results of the resurrected safety process from 2002 to 2010 resulted in the following:

- Reduction of over 75% in total work related accidents (3.8 injury rate)
- Reduction of over 85% in lost time accidents (1.3 injury rate)
- MSD's reduced by over 85%
- Worker's compensation direct costs are now less than 1 million dollars per year

We characterize the elements of success with a number of important steps including partnership with our unions. Management would not be able to implement a successful safety process unless it has the support of its unions. Although this was a bumpy road with numerous meetings and some constructive criticism being presented, the unions became part of this process.

We made sure that all managers and supervisors had accountability for safety from VP'S to the supervisors. We partnered with vendors DuPont and Humantech. We developed measurement criteria as well as made some corporate culture safety changes and added some administrative controls.

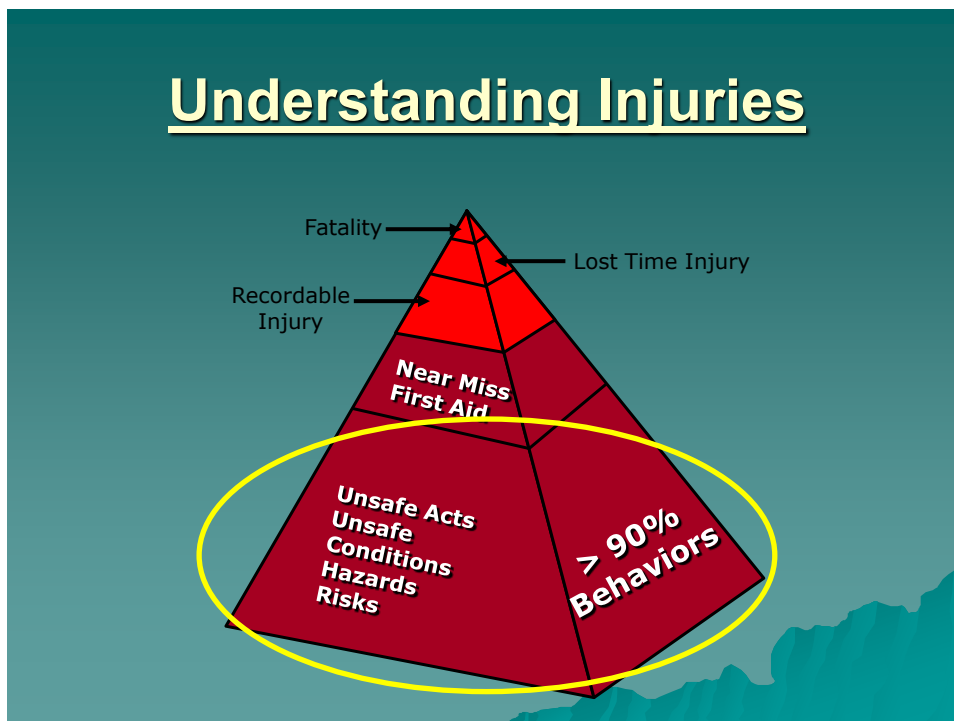
Management accountability represents a critical element in the safety success story. We tied 25% of their raises and bonus to safety goals. Leading indicators using safety audits for the supervisors and the senior VP's using lagging indicators such as lost time accidents and lost work days.

Dupont Safety Services gave us the benchmarking tools that allowed us to identify the key elements we needed to focus our attention. They looked at twelve safety areas as compared to world class organizations. Each element was ranked in five groups from fundamental to world class. Their analyses reviewed : visible management commitment, working safety policy, integrated organization for safety, line organization responsibility and accountability, aggressive safety goals, high standards of performance, supportive safety personnel, progressive motivation, comprehensive accident investigation, effective two way communications, continuous safety training, and safety auditing. We decided to concentrate on four of the elements: safety audits, accident investigation and management accountability and communications.

Safety Audits

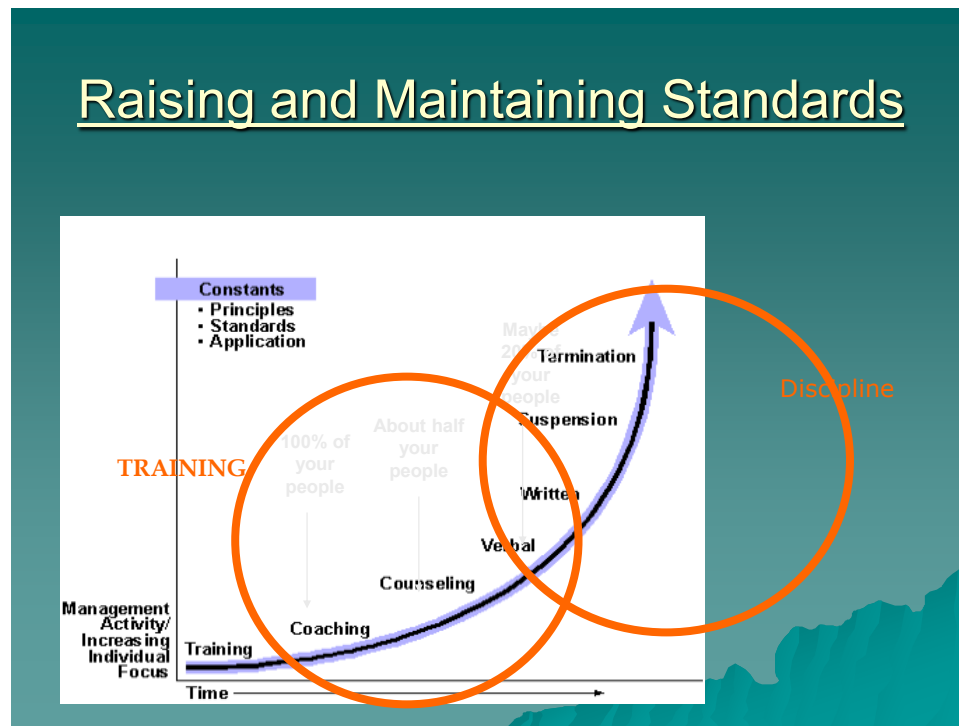
Safety audits are conducted by our supervisors and foremen at the rate of at least four per month with 50% required behavioral safety observations. We designed a very simple one page safety audit form and placed it on our Lotus Notes electronic database. We conduct about 2400 safety audits per year. There are a number of reasons for conducting safety audits. It gives a clear message to employees that you care about their safety. It says that I want to hear about your safety concerns. It addresses behavioral safety issues that impact safety. It also says that your safety is important to me that I will spend time addressing the concerns.

You ask why you are concentrating so much attention to safety behaviors in your safety audits. In order to understand that issue, we need to discuss the dynamics of injuries. The traditional injury pyramid stopped at first aid and near misses. However, a larger section is unsafe acts and unsafe conditions. This is the area where about 90% of the work related incidents are affected by unsafe behaviors. This is the driver of majority of the injuries. See the chart below.



At this point we need to discuss training and discipline and their place in an organization. Figure 1 indicates that as management activity increases in safety, the focus is from training to coaching and counseling and finally results in progressive discipline.¹

We use a three step disciplinary process of verbal, written and suspension/termination. In our organization, we recognize that safety training was not where we wanted to be so we are still in the counseling and verbal discipline area of Figure 2.²



Safety audits do have limitations and contain cautions that you should be aware of. Safety audits are discoverable by OSHA and attorneys. It is important that you have a formal plan of follow-up on the safety audits recommendations. Deming points out "You cannot inspect in quality." This means that auditing static outputs of a process will yield information on how well the process is producing and not what to do to improve the outcome or even why you are achieving the results you are getting.³

The safety audit form attached addresses the following safety topics/elements: personal protective equipment, position of employee, ergonomics, tools, machinery and equipment, operating procedures and housekeeping. We list area audited, observations, conversation with an employee, recommendations, manager's follow-up and action and safety dept. review. The system generates a number of standard reports by employee, department, and by date. We are working on other reports that analyzing the data by type of observation. We should an operational system by January 1 of next year.

Observational safety audits are the focus of our safety process as far as safety audits. Our goal is to enforce positive safety behavior and change unsafe behavior. Human behavior is both measureable and observable. You can objectively influence work related incidents! We define an observational safety audit as an action that is under the direct control of the employee. It would be like not using PPE or not lifting

¹ DuPont Safety Services

² DuPont Safety Services

³ Carder, B., and Ragan, P. 2005. *Measurement Matters: How Effective Assessment Drives Business and Safety Performance*, Milwaukee, WI: ASQ Quality Press, p. 135.

safety. Things like housekeeping and safety guards are not observations of safety behaviors. In most safety audit programs, the companies only concentrate on the negative aspects of safety behavior and conditions. We added the aspect of re-enforcing safe behaviors and thanking employees for their attention to safety. Our policy is a non- confrontational approach getting the employee to acknowledge the unsafe

The Boston Globe Safety Audit Summary

DEPTS.	BOSTON # AUDIT S	# EMPL. OBSV.	MONTHLY		%	LAST QUART	
			TARGET	MONT.	TARGET	.	YTD
			AUDITS	AUDITS	AUDITS	AUDITS	AUDITS
PRESS	89	48	100	89	89.00 %	269	601
MAILERS	72	43	84	72	85.71 %	267	575
DRIVERS	61	45	64	61	95.31 %	188	411
ELECTRICIAN	0	0		0	#DIV/0!	0	0
MACHINISTS	12	6	32	12	37.50 %	53	83
ENGRAVING	2	1		2	#DIV/0!	13	21
MAINTENANCE	0	0	10	0	0.00%	2	3
OTHER	19	9		19	#DIV/0!	59	97
TOTALS	255	152	-	255	-	851	1791

SAFETY AUDIT MONTHLY SUMMARY REPORT

TOTAL S	
TOTAL # AUDITS	255
TOTAL # EMPLOY. OBSV.	152
PERCENTAGE OBSV.	60%

Behavior and reinforce the safe behavior as well as thanking the employee. We use the Traveler's system of "Safe" technique to deliver positive feedback and "Instruct" to manage mixed coaching feedback.

The "Safe" technique is discussed below:

- S- Specify safe work practices observed
- A-Apply praise immediately, consistently and privately
- F-Finish with a thank you
- E- Encourage more of the same safe behavior

The "Instruct" Technique is as follows:

- I-Initiate feedback immediately, consistently, and privately
- N-Note the safe behavior first
- S- Specify any at risk behaviors
- T- Tell the employee you are concerned about the behavior
- R-Review the alternative safe work practice
- U- Uncover and negate any system barriers (listen)
- C- Conclude positively and get their commitment
- T- Thank them

In terms of the entire context of how to control worker's compensation costs, let's take a look at the following chart:



The reducing worker's compensation chart identifies safety audits, observations and knowledge that impact work related incidents. Injury prevention is based upon managing safety behaviors, work

related conditions, developing and implementing safety policies and procedures as well conducting appropriate safety training. Our goal is to prevent all injuries, but if an incident takes place then accident investigation techniques as well as case management techniques as transitional duty programs, medical management, surveillance and work capacity reviews are in place for controlling costs.

Humantech worked with The Globe in developing an ergonomic program including analyzing all its job tasks and developing recommendations to reduce exposures where practical.

In Summary

In conclusion, safety audits are a great tool as a leading indicator that a company can implement to control its work related losses. It should be understood that it needs to be part of an overall safety process that has management accountability and commitment as well as other elements in place. It does have its limitations and an individual company needs to tailor its safety audits to the specific needs of the company's safety exposures as well as an understanding how to best implement this system into the company culture to make it an effective tool.

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