



LEAN

BEHAVIOR-BASED SAFETY

If you think behavior-based safety is too resource-intensive for your facility, this leaner version promises the benefits without much of the cost.

by Terry L. Mathis

The business climate has drastically changed since 1984. Behavior-based safety (BBS), in general, has not! Even a proven technology with documented results such as BBS must eventually evolve with the prevailing business climate. The traditional BBS process is fat and out of touch with the realities of today's worksites. Sites considering BBS are concerned about both the internal and external costs. Sites that already have implemented BBS are straining to provide the resources necessary to continue the process. Other sites have decided not to implement because of the costs and inefficiencies. A leaner approach that remains true to the original principles has proven to be the answer to all these problems.

PROBLEMS WITH TRADITIONAL BBS

Traditional BBS grew up in a time when many companies still had a full staff. Early BBS processes involved as many people as possible in an attempt to maximize employee ownership and participation. Many of the founders of BBS utilized resource-intensive techniques such as overtraining, inside-out cultural change and high levels of employee involvement to boost their probability of success. The whole thing worked. It was effective, but it was not efficient.

BBS had another problem that did not manifest itself immediately: It was amateur. In the zeal to "empower" employees, BBS entrusted every aspect of the process to workers who had only minimal training to perform technically demanding tasks such as leadership, identifying behavioral targets, coaching, behavioral observation and data analysis. Teams of workers did remarkably well given the challenge, but many opportunities for further gains were missed. The heavy reliance on employee involvement was done purposefully to get the maximum impact on the site culture, but it resulted in other problems. Behavioral targets were not expertly identified. Feedback was not given effectively. Observation strategies ignored good sampling technology. Observation data often contained rich leading indicators of upcoming accidents and their underlying

TABLE 1.0

ITEM	SITE 1 LEAN	SITE 1 TRADITIONAL	SITE 2 LEAN	SITE 2 TRADITIONAL
Population of Test Division	321	292	222	239
Leadership Team Membership	4	12	4	12
Number of Observers	11	29	9	24
Employee Hours for Implementation	220	1181	188	1176
Days of Outside Consultants Time	7	19	7	19
Hours/Month to Run the Process	30	164	22	144
Beginning TRIR (3-year average)	2.8	3.1	2.4	2.9
Year One Reduction in TRIR	51%	41%	49%	43%

- **Training** – Most BBS processes take many employees many days of training to learn and start the process. The strategy of overtraining has to go. All training has to be delivered in an efficient manner, minimized, with only enough philosophy to support the basic principles and a lot of “step 1, step 2” mentality. Training must be focused and shortened for maximum effect in minimum classroom time. It must be memorable, delivered just-in-time

and reinforced through non-classroom techniques.

- **Leadership** – Most BBS processes are led by teams of employees. This team or committee often is the target of the overtraining, wasting countless amounts of manpower. The team is sometimes used for design purposes to help make the process more site-specific. The team is asked to interpret the data from the observations and recruit and train new observers. All of these tasks require expertise that many teams lack. Teams can be replaced with facilitators or smaller teams that can both decrease the number of people in training and the overall training time and increase the expertise of the smaller group or individual. Using site personnel who are already expert in some or all of these tasks also can lead to greater integration of the BBS process into the site structure and management culture.

- **Subject-Matter Experts** – The focus should not simply be on using fewer people, but on using the right people with the right skills. For example, most sites have someone with data-analysis expertise. Why not utilize this person to analyze data or to facilitate the team?

- **Observations** – Most BBS processes recruit between 10 percent and 100 percent of the work force to perform observations. Gathering data is combined with giving feedback in every instance. The number of observers can be drastically reduced and feedback can be fo-

causes. But the data was not expertly analyzed and utilized. Problems remained unidentified, identified problems were not shared with the proper problem solvers and organizations missed countless opportunities to learn how to prevent future accidents.

Most managers were kept distanced from the BBS process in the name of employee ownership, so most organizations didn't even know what they were missing. The results were slow, but improvement was noticeable. We all lived with the inefficiencies because accident rates were decreasing, BBS was new and we had not yet discovered alternatives.

These problems were not universal. Some sites developed the expertise to run their processes and analyze their data well. Some sites utilized their experts as facilitators or resources to their employee committees/teams and others simply had gifted workers. But an alarming number of processes failed or plateaued due to lack of data analysis expertise.

CHANGES IN THE BUSINESS CLIMATE

Since the early 1980s, the business climate has changed significantly. Most sites have experienced dramatic downsizing and re-engineering and are beginning to adopt new practices such as lean leadership and lean manufacturing. The manpower available to do

anything other than production in industrial America is at an all-time low.

During this same period, labor unions saw some of the more poorly implemented BBS processes and decided that management was using BBS to abdicate its safety responsibilities and simply blame workers. They also noted isolated cases of discipline and punishment attached to BBS observations and decided that it was wrong to ask union members to “spy” and “snitch” on other union members.

Today's business climate is far from an ideal environment in which to practice traditional BBS. The start-up time is too long, the external costs are too great, unions resist the process and the internal resources needed to maintain the process are simply not available in many companies. This leaves us with three choices:

1. We simply do BBS because it's the “right thing to do” and eat the costs;
2. We abandon BBS and label it as desirable but too costly; or
3. We use the fundamentals of the BBS process to build a lean model to fit today's realities.

OPPORTUNITIES FOR MAKING BBS LEANER

If we examine the body of BBS, we find several spots where the fat is evident:

LEAN

cused only in areas where it can make a difference. The observers can do S.W.E.E.P. (Seeing Without Explaining to Every Person) observations that give all the advantages of traditional "up-stream" metrics without the outrageous expenditures of manpower. The fewer observers can be better trained and many workers who would rather not have to confront their fellow workers about some safety issue can be spared the pain. The few people with good coaching skills can be used for the focused feedback. The whole process becomes both leaner and more expert.

- Focus – Checklists in many traditional BBS processes possess 20 or more "critical" behaviors. Observing and giving feedback can become very time-intensive. Also, long checklists actually can create a dependence on the observations to maintain the consistency of behaviors. When the frequency of observations goes down, the workers tend to quit doing the checklist behaviors. Shorter checklists take shorter times to observe and gather data; create habitual competence; minimize dependence on

could prevent disastrous accidents are never learned by corporations.

OTHER OPPORTUNITIES

Another "lean" technique is to implement BBS internally without relying completely on outside consultants. The availability of DIY materials for BBS has been lacking. Real training and resources for DIY BBS is a new technology that is badly needed and whose time has come.

Lean BBS is a good alternative for sites with union resistance to traditional BBS. The lean process eliminates management omission and can minimize or even eliminate using union members as observers. SWEEP observations can be done by safety professionals or safety representatives.

Sites that already have implemented

The leaner version of BBS may be a better fit for
small sites, sites with limited budgets and/or
sites with inadequate resource availability.

ongoing observations; are more easily remembered by workers; and tend to produce quicker and more focused results. They also take a lot less manpower.

- Data Distribution – Much of the data generated in traditional BBS is seen only by the steering committee or leadership team. The data could be better analyzed at the management level or outsourced. Many world-class safety organizations have reduced accidents to very low-probability risks that often repeat at intervals marked in years rather than days or months. These accident cycles and repetitions are only recognizable in large sets of data. Often, this is best done at the corporate or even multi-corporate level. The data managed by employee teams rarely sees this kind of analysis and many lessons that

BBS can use lean techniques to put their own processes on a diet. Checklists can be focused on fewer behaviors. Leadership teams/committees can begin to downsize through attrition or in a more accelerated manner. Observer teams can be supplemented with SWEEP observers and eventually replaced. The best traditional observers can become the safety coaches sent to the "hot spots" identified by the SWEEP observations. Data can be redistributed or even outsourced for analysis and distribution in the organization. Many sites have found the diet not only helped to reduce the use of resources, but actually re-energized their BBS process. New, leaner processes are being implemented or retrofitted in many U.S. firms and the trend is spreading to other parts of the globe.

CASE STUDY

Sites have been implementing this leaner version of BBS since 2001 and have, in general, gotten equal or better accident reductions than sites implementing traditional BBS. However, there was not a study of side-by-side implementations at the same site until 2004. Two manufacturing sites implemented two simultaneous BBS processes, one traditional and one lean. All the initial training and design was completed by year's end in 2003 and the observation process began shortly after the first of the year in 2004. The sites using the lean approach achieved slightly better results with significantly less use of both internal and external resources. The first-year statistics are in table 1. (Studies at three sites that have reduced their traditional processes to lean began in January 2005 and mid-year results will be available by August 15.)

CONCLUSIONS

Those that have opted out of the BBS trend because of expense or resource requirements now have new options. Firms that have traditional BBS processes have a way to reduce manpower requirements without sacrificing effectiveness. The leaner version may be a better fit for small sites, sites with limited budgets and/or sites with inadequate resource availability. Simply using parts of the technology without opting for the whole process may prove effective for those with specialized needs, difficult logistics and cultural complications including union resistance. This new way of thinking about BBS has brought a useful technology into the realities of today's business climate.

OH

Terry Mathis is president and founder of ProAct Safety (<http://www.proactsafety.com>), The Woodlands,



Texas. He has implemented safety processes at sites in 18 countries. He can be reached at (800) 395-1347.

www.occupationalhazards.com

Copyright © 2004-2005 Penton Media, Inc.

May 2005 / Occupational Hazards 35