

Behavior-based Safety



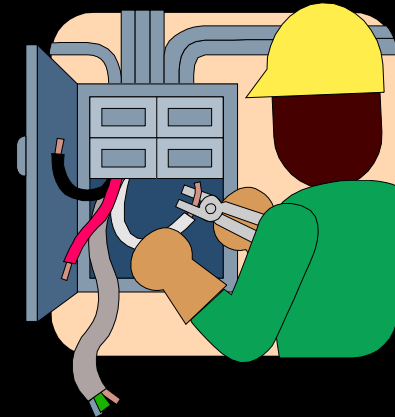
A Continuum E+T Seminar ®

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Behavior-based Safety

- An excellent tool for collecting data on the quality of a company's safety management system
- A scientific way to understand why people behave the way they do when it comes to safety
- Properly applied, an effective next step towards creating a truly pro-active safety culture where loss prevention is a core value
- Conceptually easy to understand but often hard to implement and sustain

Objectives of BBS



- An Accident Free Workplace
- Empowered Employees
- Pro-active Rather Than Re-active Work Process
- To Minimize Direct and Indirect Costs and Threat of Liability From Accidents

Cost of Accidents

Direct Costs

- Hospital
- Lost wages
- Law suits
- Damages

Cost of Accidents

Indirect Costs

- Psychological
- Lost family time
- Tarnished reputation
- Economic trickle

BBS Process

Steps Involved

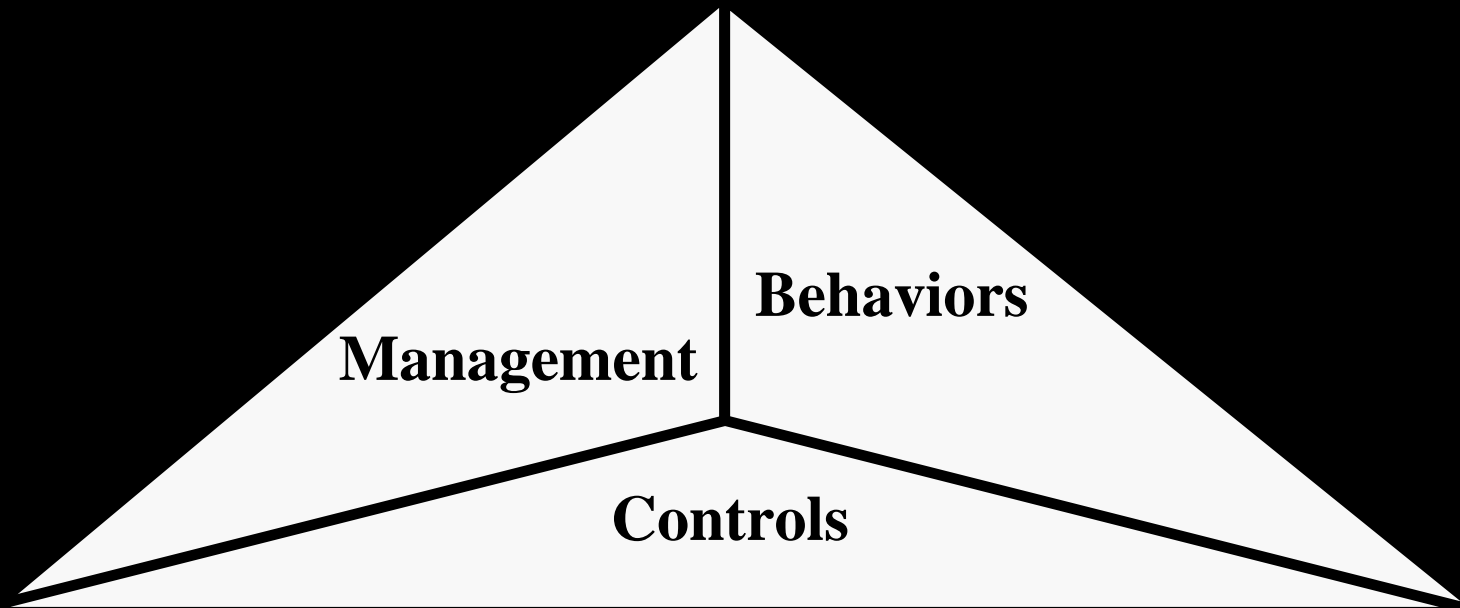
- Discovery - Determine unsafe behavior
- Design - Identify BBS team
- System Up - Implement BBS observation process & collect data
- System Check - Ensure BBS process has been effectively implemented

BBS Process

Obstacles

- Poorly Maintained Facilities
- Top-down Management Practices
- Poor Planning/Execution
- Inadequate Training

BBS Process



Workforce participation

The BBS system must develop from the bottom up!

- The system is driven by employees while being guided by management.

Workforce participation

Role of management is to provide

Vision, values - a clear, concise mission for the BBS program

Goals, objectives - clear goals and objectives for the BBS program (i.e. 15% accident reduction in 12 months)

Workforce participation

Role of management is to provide

Resources - financial support (i.e. tools, placards, recorders)

Manpower - Enough manpower to support the BBS program

Workforce participation

Role of employees is to provide

Willingness - Agreement to participate in the BBS program

BBS mindset - commitment to safety objectives

Workforce participation

Role of employees is to provide

Resources - Use all resources provided by management
for success of the program

Targeting Unsafe Behaviors

Behavior: Any directly measurable thing that a person does, including speaking, acting, and performing physical functions.

Consequences: Events that follow behaviors.

Consequences increase or decrease the probability that the behaviors will occur again in the future.

Targeting Unsafe Behaviors

A small amount of behaviors account for a large amount of accidents (consequences)

i.e.

- Improper lifting
- Slips, trips and falls
- Using damaged or malfunctioning tools

Targeting Unsafe Behaviors

Behavior is

- Observable
- Measurable
- Manageable

Targeting Unsafe Behaviors

Workplace

- Focus on relevant behaviors that will have a direct impact on losses
- Many behaviors that are directly related to the losses are unconscious behaviors that occur quickly

Targeting Unsafe Behaviors

Workplace

- Select critical behaviors to focus on through actual observation of people at work - not just through discussion & brainstorming
- Review accident/injury logs to target specific “loss” behaviors

Targeting Unsafe Behaviors

Use prior data to
target jobs for observation

- Loss runs from insurance carrier or broker
- OSHA logs
- First aid logs
- Near miss / hit reports
- Absenteeism / turnover reports

Targeting Unsafe Behaviors

Management deficiencies

- Improper tools/equipment
- Unrealistic time frames
- Limited resources

Targeting Unsafe Behaviors

Checklists used in BBS process

Categories

- Housekeeping
- Use of tools
- PPE

Observational Data Collection

Can supplement identification process

1. OSHA 300 logs
2. Safety committee data
3. Accident/incident reports

Observational Data Collection

- Use a design team of hourly workers, supervisors and managers, to design the process - forms, training, data collection and ID roles & responsibilities
- Clearly define critical behaviors that will be observed - what is “safe” vs. “at-risk”?

Observational Data Collection

- Give feedback on safe & at-risk behavior observed (using checklists)
- Determine who will act on data collected through observations

Data-driven Decision-making

- Observational data (turned into some form of metric, i.e. spreadsheets) is analyzed.
- By examining trends in this data, it soon becomes evident where improvement needs lie.
- Establishing a baseline sets the tone for the effectiveness of the BBS program

Data-driven Decision-making

- BBS team then decides the feedback necessary for reinforcement
 - positive reinforcement for safe actions
 - negative reinforcement for at-risk actions

Intervention

- Usually begins with briefing sessions for all work areas and departments involved
- Observers volunteer
- Checklists (containing behavior parameters) is distributed
- Management guides the process

Intervention

- Observers monitor workers (with approval)
- The baseline is established (usually 4 weeks)
- Behavior is observed throughout the baseline
- Intervention is then implemented

Intervention

Hierarchy of interventions

- Attempts to eliminate the hazard
- Having employees work around the hazard
- Guarding or warning employees about the hazard
- Training employees to deal safely with the hazard

Intervention

Reinforcements

- Positive - any consequence that follows a behavior and increases the probability that the behavior will occur more often in the future - *You get something you want*
- Negative - a consequence that strengthens any behavior that reduces or terminates the consequence - *You escape or avoid something you don't want*

Intervention

Reinforcements

- Can take place during the observations
- Can be implemented after the baseline
- Can be structured for formal time frames

A key strategy is to determine what reinforcements work, “what will motivate the employee.”

Feedback

- Feedback is a key step in the BBS process
- Feedback can take the presence of
 - “Pats on the back”
 - Graphs or spreadsheets in a break room
 - Weekly safety briefs
 - Management announcements

Feedback

- Feedback must be consistent
- The BBS team will eventually see behavioral trends
- Unsafe behaviors will become increasingly evident
- Control measures can then be implemented

Feedback

If working properly, you will see

- % of safe behaviors increasing and the % of at-risk behaviors decreasing
- Reporting of near misses / hits increasing
- Both the number of observations and level of participation increasing
- Frequency & severity of injuries decreasing
- Increasing acceptance of responsibility and accountability for personal behavior