Behavior Based Safety (BBS)

What is Behavior Based Safety?

Behavior is “the manner of conducting oneself.”

* Merriam-Webster dictionary

Therefore, behaviors are observable acts.

Behavior Based Safety focuses on behaviors that promote safety.

Behavior Based Safety is NOT:

- A fully-developed safety program.
  - It is a process designed to eliminate behaviors that put workers at risk and enhance existing safety protocols.

- A process used to enforce safety rules, nor to correct hazardous conditions.
  - Safety rule violations and hazardous workplace conditions must be corrected outside of the BBS process.

- A process for assigning blame or criticizing workers.

How does BBS differ from traditional safety?

Traditional Safety…

- Is reactive – focuses on correcting problems only after they have occurred.
- Searches for “root cause” of accidents
  - Using incident/accident data from investigations
    - e.g. Incident and Severity rate: TCR/DART
  - Focusses on making the working environment less hazardous.
  - Sometimes assigns blame to individuals.
    - Emphasis on negative reinforcement.
How does BBS differ from traditional safety?

Behavior Based Safety...
- Focuses on observing worker behavior.
  - Common behaviors that place employees at risk are noted and adjustments are made.
  - Data come from behavioral observations.
- Has a holistic understanding of worker behavior.
  - Notes the environment in which behavior occurs, the behavior itself, and consequences of this behavior.

Behavior Based Safety underlies and benefits Traditional Safety

BBS is focused on two concepts:
- BEHAVIOR
  - What is behavior?
  - What are the factors influencing “at-risk” behavior?
  - How can this behavior be discouraged?
- RISK
  - What is risk?
  - Why do people take risks?
  - What are the consequences of taking these risks?

Remember: Behavior is “the manner of conducting oneself”

Behaviors cannot be isolated from the environment in which they occur.

Always Keep in Mind...

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Behaviors cannot be isolated from the environment in which they occur.

Therefore, if employees are expected to promote safe practices the working environment must encourage this behavior.
Risk = exposure x probability

Exposure – extent a person is involved in an activity.

Direct  
Indirect

Probability – the chances of an accident occurring during activity.

1 in 6  
1 in 52

How do Consequences Affect At-Risk Behavior?

Risk = exposure x probability

Positive Consequences Influence At-Risk Behavior

- Convenience
- Time savings
- Increased productivity
- Getting away with it
- Feeling bullet-proof

Worker's reasons for taking a risk:

In my opinion . . .
In my experience . . .
I don't think it's a problem because . . .
I've done it before and not gotten hurt.
What's wrong with it?

That's the way I always do it!
I don't know.
I didn't think about it.
It's the way we always do it around here.
I can't do it any other way because . . .
It would be difficult to do it that way because . . .
If I do it that way, (this would happen).
Implementing Behavior Based Safety

Prior to Implementation

Important to develop a BBS Committee and working structure that persists after implementation:

- Designs the BBS process.
- Develops the implementation strategy.
- Implements the BBS process.
- Steers the BBS process.
  - Assures observation and data quality through a Quality Assurance Plan.
  - Champions worker involvement and completion of observations.
  - Analyzes observation data to identify the causes of at-risk behaviors and develops recommendations.
  - Facilitates removal of barriers to workers being able to easily perform work safely.
  - Reports the results of data analysis.

Responsibilities of Managers & Supervisors

- Understand the process (receive training)
- Establish BBS as a part of the job
- Help identify and correct systems issues
- Remove barriers
- Support:
  - Time for:
    - Training
    - BBS Committee duties and meetings
    - Observations
- Encourage and provide positive reinforcement: workers, observers, BBS Committee members

4 Steps of Implementation

The BBS implementation process consists of four steps we will discuss in further detail:

1. Establish Feasible Goals
2. Develop Observation Checklists
3. Take observations
4. Provide Feedback
Step 1: Establish Feasible Goals

The overall purpose of BBS is to establish a culture of safety in the working environment. However, attainable goals need to exist in working toward this. Make goals **SMART**:

- **Specific**
- **Motivational**
- **Attainable**
- **Relevant**
- **Trackable**

e.g. A goal of “zero-injuries” is **NOT** SMART, but a goal of 80% participation in appropriate safety training is SMART.

Goals should focus on outcomes, NOT behaviors.

Step 2: Develop Observation Checklists

In looking for behaviors that encourage safe practice, there are several options:

- Review past accident/incident reports to identify behavior that could have prevented them.
  - Focus on those that could have prevented the largest number of accidents.

- Consult with employees and managers.
  - It is important for employees to take responsibility for their actions.
  - Beneficial for developing trust.

- Observe workers for a period of time.

Step 1: Establish Feasible Goals

Employee participation in the goal-setting process is important, and must continue throughout the BBS process to ensure success. There are two broad reasons for this:

1. “Employee buy-in” – verbal and nonverbal support for change from those directly affected.

2. Interpersonal trust – trust among employees, and trust between employees and management.
Step 3: Observing

There are several decisions to be made when selecting an observation method or methods:

• Who will observe?
  – Self-observation
  – Peer-to-peer
  – Top-down
  – Working groups

• Frequency of observations?
  – Daily, bi-weekly, monthly

• How will feedback be given?
  – Immediately
  – Within a week

Observers Have…

Three main responsibilities:

  – Gather data
    • Observation data (Safe/Concern)
    • Discussion data (What/Why)

  – Give feedback
    • Positive reinforcement for safe behaviors
    • Provide coaching on concerns

  – To remain objective/unbiased

As an example, Sandia’s method of observation is:

• Peer-to-peer
• Anonymous (No Names/No Blame)
• Announced
• 5 minutes or less
• Provide feedback:
  – Positive reinforcement for safe behaviors
  – Coaching for behaviors of concern
• Identify obstacles
• Foster safety communication

An Observer’s Job is **NOT**:

• Ambush or spy on workers
• “Catch” people doing activities unsafely
• Criticize worker performance
• “Safety cop” (risks vs. rules; right vs. wrong; safe vs. unsafe)
• Watch a whole task or job
• Force people to change
• Turn people in for discipline
• Identify conditions that don’t directly impact critical behaviors
What happens with more observations? Feedback Changes Behaviors

Less injuries! Fewer injuries!

Step 4: Providing Feedback

Providing feedback to workers in a timely manner is important. Using multiple methods has proven beneficial:

• Verbal - Immediate feedback during observations.
• Through reports written after observation data collected.
• Posting graphs/charts where all can see.
• Having celebrations for milestones or providing other incentives.

NOTE: It is important that workers are allowed time to adjust their performance before being observed again.

An example of a “Green/Red” Chart from the Observations of a Division at Sandia
Why Implement Behavior Based Safety?

The BBS Process Closes the Gap to “Nobody Gets Hurt”

- Focuses on the critical few precautions that would prevent the most injuries
- Prioritizes actions to remove barriers
- Generates actionable data
- Provides positive reinforcement of safe behaviors
- Engages workers and management: Worker driven/Management supported

BBS is proven to reduce injuries

- At 850+ companies injuries were reduced by an average of:
  - 37% after 1 year
  - 66% after 2 years
  - 87% after 3 years

- Multisite Success – See case study of BP’s Fabrics and Fibers Business Unit (FFBU) included in your extra materials.

The Benefits Outweigh the Costs

- What is the Return on Investment for BBS?
  - Saves time, money, energy, and can improve morale among employees and between employees and managers.
  - Costs of accidents/incidents are both direct and indirect:
    - Direct costs: investigation, production downtime, medical expenses, damage to equipment or product, repairs, legal costs, fines, etc.
    - Indirect costs: employer/public liability, business interruption, training replacements, loss of goodwill/employee morale, negative public image.
Why Implement Behavior Based Safety?

Remember:

The Iceberg Theory

For every accident, there are many “near misses” that go unnoticed.

Sources