2002

**An Integrated Approach to Behavioral Based Safety**

Jim Spigener

*BST*

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3 Types of At risk

- **Enabled** = within persons control - conditions and systems support
- **Difficult** = can be done but takes extra effort
- **Non-enabled** = not within persons control
Primary Concepts

- **Process not Program**
- **Adaptation vs adoption**
- **Employee Involvement**
- **Don’t blame employees**
- **Parallels with quality**
- **Develop internal resources for implementation**
- **Objective: Continuous Improvement**
- **Management & workforce must understand and buy-in**
Barriers To Continuous Safety Improvement

- Hazard recognition and response
- Business systems
- Rewards/recognition
- Facility and equipment
- Disagreement on safe practices
- Personal factors
- Culture
- Personal choice
Fewer Accidents

Safety Training

Policies

Slogans

Reprimands

Regulations

Safety Meeting

Contests & Awards

Committees & Councils

?
Safety Activities

Fewer At-Risk Behaviors

Fewer Accidents
Fatalities
Lost Time Accidents
Medical Treatment
First Aids
Near Misses

Non-enabled
Enabled
Enabled
Disabled
Non-enabled

At-Risk Behaviors
Behavior

An Observable Act
ABC Analysis

Antecedents  
Anything which precedes and sets the stage for Behavior

Behavior  
An observable act

Consequences  
Anything which directly follows from the Behavior
Understanding System Influences

ABC Analysis

Antecedents
- Goggles don’t fit
- Goggles are in poor condition

Behavior
- Worker fails to wear goggles when grinding

Consequences
- Comfort
- Better Vision
- Exposure to Injury
Consequences

Safe Behavior

Antecedents

At-risk behavior

Consequences

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The CBI® Tools

• List of behaviors that have caused accidents
• Extracted from accident data
• Steering committee adds others based on their knowledge of workplace behavior
Critical elements

- No names / no discipline
- Behaviors grouped into categories
- Selected variables used for sorting data
- Comment section
Part Two — CBI® Definitions

• Establishes in observable terms a consistent measurement of workplace behavior
• Ensures consistency between observers and observations
• Definitions are not a rewrite of rules and regulations
Example Definition

4.1 Line of Fire:

Is the person positioning self to avoid getting contacted, sprayed, overexposed, struck or hit by something if it lets go, gives way, releases or falls?

For Example –

1. Is person avoiding standing under suspended load?
2. Is person standing out of path of flying debris?
3. When breaking flange does the person break nuts farthest away first?
4. Does person avoid looking into pipe being rodded out?
Observers

TO START: Train a Core Group of Hourly Workforce

GOAL: 100% of Site Population Trained

Typical Frequency of Observation

TO START: 2 per week Per Observer

DURATION: 5 – 30 Minutes
Analyze Data / Select Focus / Develop Action Plan
As Safe Behavior Increases, Recordable Rates Decrease
Hand Protection

Increased from 80% Safe to 98% Safe

Periods:
- Period 1
- Period 2
- Period 3
- Period 4
- Period 5

Feedback Timeline:
- Action Planning
Industrial Hygiene Behaviors
Increases in Percent Safe over Time

Percent Safe

Period 1  Period 2  Period 3  Period 4  Period 5

Hearing Protection  Eye/Face Protection  Hand Protection

Problem Solving  Feedback
High Percent Safe Scores are Associated with Low Recordable Rates

91% to 92%: 11.89
93% to 94%: 9.40
95% to 96%: 3.95
Sustainability of Implementations

Percentage Still Using Their Processes

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BAPP® Technology Process Flow Chart

DATA COLLECTION/FEEDBACK

MANAGEMENT SPONSOR

JOBS

DATA MANAGEMENT

PROBLEM SOLVING

STEERING COMMITTEE