Behavior Based Safety (BBS) in Construction

Trevor Atherton, CSP, CHST, CRIS
Safety Manager
Gribbins Insulation

Today’s Presentation

- Overview of BBS
- Program
- Barriers
- Communication
- Successes
Definitions

BBS – It’s the science of people’s behaviors associated with their surroundings, choices, and actions regarding safety. It’s the study of why people take chances with their safety and what drives them to take those chances.

At-Risk – Action or condition that poses a potential danger.

Observation – The act of careful watching and listening: the activity of paying close attention to someone or something in order to get information.
**ABCs**

- Antecedent – something that comes before and triggers a behavior, what prompts us to act
- Behavior – what we do and how we act
- Consequence – what follows or happens as a result

**Goals of BBS**

- Observe, identify and mitigate at-risk behaviors
- Positive discussions to increase awareness in a proactive manner.
- Reduce at-risk behaviors that lead to incidents.
BBS Elements

- Identify Behaviors
- Gather Data
- Feedback
- Reinforcement

Incident Triangle

- 1 Fatality
- 30 Lost Time Injuries
- 300 Recordable Injuries
- 3000 Near Misses
- 30,000 At-Risk Actions
Conventional Safety Program

Influences

- Culture
- Peer Pressure
- Attitudes
- Physical Condition
- Consequence
- Expectations
Beginning the Process

- Began in 2006
- Revised in 2011 to Surveying At-Risk For Elimination (SAFE) Program

SAFE Program

- Peer to peer observation
- No Name, No Blame Philosophy
Observations

› Request to do an observation
› Allow to observe without request

SAFE Card

<table>
<thead>
<tr>
<th>Defects</th>
<th>Safe</th>
<th>At-Risk</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee wearing proper eye protection for task at hand.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee using proper body mechanics.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee wearing proper hand protection for the task at hand.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee is working from a ladder correctly.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee is flat footed with chain closed while working from scissor lift.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees using fall protection and using correctly when required.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Is a follow up needed? ___ Yes ___ No Who needs to follow up?

Has follow up been completed? ___ Yes ___ No Date Completed:

Comments:

Surveying At-Risk For Elimination
Barriers

- The things that keep us from performing tasks safely. The include:
  - Procedures
  - Culture
  - Equipment/Facilities
  - Personal Choice
  - Personal Factors
  - Training
  - Unsure of / Disagreement of Safe Practices

Procedures

- The tangible things that can be corrected by changing the way we do things.

- Examples:
  - Scheduling
Culture

- We are doing it this way because that is how it has been done.

- Examples:
  - I didn’t wear safety glasses because we’ve never worn them performing this task.

Equipment/Facilities

- At-risk condition or equipment that is identified.

- Examples:
  - Having to use awkward body position to reach control.
  - Ice build up due to condensation from cooling tower.
Personal Choice

- Employee has the necessary training and equipment but chooses to work at-risk

Examples:
- I knew I needed hearing protection in this area, but I didn’t want to walk back to the gang box and get them.
- There were extension cords in my work area that were creating a tripping hazard, but they weren’t my cords.

Personal Factors

- Things that deal with personal issues

Examples
- Stress
- Illness
- Lack of Attention
- Excessive Fatigue
Training

- Employee didn’t receive enough or the right type of training.

- Examples:
  - Employee was conducting LOTO without being trained.
  - Employee was removing asbestos with only awareness training.

Unsure/Disagreement of Safe Work Practices

- There is a disagreement on a safety procedure or the employee doesn’t know the rule or how to interpret it.

- Examples:
  - Employees were working on a yellow tag scaffold where there was a low hanging bar and were not using fall protection.
  - Employee was using safety glasses where foam lined goggles should be used.
SAFE Report

Gribbins Insulation SAFE Report

June 18

<table>
<thead>
<tr>
<th>Task and Equipment</th>
<th># Safe</th>
<th># Risk</th>
<th>% Safe</th>
<th>% Risk</th>
<th># Market</th>
<th>% Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee wearing proper eye protection for task at hand (safety glasses, googles, face shield)</td>
<td>53</td>
<td>6</td>
<td>98.00%</td>
<td>1.90%</td>
<td>53</td>
<td>100.00%</td>
</tr>
<tr>
<td>Employee using proper body mechanics (shoulder position, reaching, etc.)</td>
<td>33</td>
<td>4</td>
<td>87.88%</td>
<td>12.12%</td>
<td>34</td>
<td>100.00%</td>
</tr>
<tr>
<td>Employee wearing the proper hand protection for the task at hand (for instances when working with acid, caustic, etc.)</td>
<td>33</td>
<td>0</td>
<td>100.00%</td>
<td>0.00%</td>
<td>33</td>
<td>100.00%</td>
</tr>
<tr>
<td>Employee is working from a ladder correctly (slip using step ladder or straight ladder, not using top step of ladder, not extending beyond the rails, etc.)</td>
<td>12</td>
<td>4</td>
<td>75.00%</td>
<td>25.00%</td>
<td>11</td>
<td>91.67%</td>
</tr>
<tr>
<td>Employee is Ratloc Form with chain closed safely working from ladder 1B</td>
<td>12</td>
<td>0</td>
<td>100.00%</td>
<td>0.00%</td>
<td>12</td>
<td>100.00%</td>
</tr>
<tr>
<td>Employees using full protection and using correctly when required (helmet, face mask, proper glove, safety footwear, etc.)</td>
<td>21</td>
<td>0</td>
<td>100.00%</td>
<td>0.00%</td>
<td>21</td>
<td>95.24%</td>
</tr>
</tbody>
</table>

Grand Total: 152 2 98.00% 2.01% 154 77.20%
Struggles

- Keeping Employees Involved
- Ever Changing Work Force
- Making Workers Feel Observation Count
- Contrast Between Jobsites
Communication

- Conversation on what was observed
  - Safe Actions
  - At-Risk
  - Area for Improvement

Communication

- Feedback Exercise
What’s Worked

- Incentives
- Response
- Mentoring Employees
- Gaining Trust
- Open Communication

Participation

Percent Participation

Percent Participation
Successes

- Reduction in Rates
- More Involvement
- Employees Resolving At-Risk
- Less Violations
- Accreditation

Incidents
Questions?

Trevor Atherton
Safety Manager
Gribbins Insulation
812-422-3340
tatherton@gribbins.com