PEER®
A Dynamic Behavioral Safety Leadership Process

B-Safe Management Solutions Inc.
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https://peer-leader.com
info@bsms-inc.com

Who are BSMS Inc?

- Specialists in Safety Culture, Safety Leadership & BBS
- Operate in 62 Countries
- Experience in 25 Industrial Sectors
- 25 year successful track record working with Fortune 500 / Footsie 100 clients
- Based in Franklin, Indiana, USA

Our goal is to help clients create a culture of safety awareness and accountability so that nobody gets hurt.

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What is PEER®?

PEER® is:

‘A dynamic Behavioral Safety Leadership process that helps to create a safety partnership between management and the workforce by facilitating positive engagements with employees about risk-taking behavior.

Suitable for all workplaces

Proven to make a difference

Why PEER®?

Develop managers key leadership communication skills to exert the maximum influence on people’s safety behavior, to help create a strong, positive and sustainable safety culture.

- Improves people’s safety behavior by up to 86%
- Reduces lost time and minor injury frequency rates by around 35%
- Creates better business continuity, thereby increasing productivity — by avoiding incidents, accidents, breakdowns and process failures
- Reduces insurance premiums by around 30%
- Improves standing and reputation among suppliers, clients and partners.
- Leads to better all-round economic performance
How does PEER® work?

Company personnel observe workplace activities and engage people in conversations to reinforce their safe behavior or change unsafe behavior.

Back in their workplace/office, they access PEER® software, hosted on our secure server, and enter their observations, discussions, and any corrective actions requiring follow-up.

The site PEER® administrator provides feedback & focuses on the build-up of underlying incident-causing conditions (i.e. Root Causes) identified by the safety leaders. Fixing these, eliminates many unsafe behaviors at a stroke!
Implementing PEER® - Training

Train Safety Leaders half day classroom / half day field

Observing, Feedback & Coaching Skills

PEER® eCard - Behavioral Focus

Access & Egress
Barriers
Body Positioning
Driving
Environmental
Equipment Use
Health
Housekeeping

Heavy Materials Handling
Isolations / Purging
Manual Handling
Mechanical Lifting Operations Mobile
Machinery
Personal Protective Equipment (PPE)
Use of Tools
Work Processes
PEER® eCard - Track Potential Serious Injuries & Fatalities (SIFs)

87% of SIF’s are identified from safety observations / conversations

NON-ROUTINE SITUATIONS
- Deviation from Normal Operations (Upset)
- Emergency Shutdown
- High-Energy Potential
- Loss of Containment
- Process Instability
- Process Upsets
- Unexpected Changes
- Unexpected Maintenance
- Unusual/Non-routine Work

ROUTINE SITUATIONS
- Routine Maintenance
- Equipment Use
- Access/Egress

Key SIF Exposure Categories
- Mobile equipment: Confined space entry
- Jobs that require lock-out tag-out
- Lifting operations
- Working at height
- Manual handling
- Chemical handling
- Walking on same level
- Dropped object
- Use of tools

Impact
- Life Threatening
- Life Altering
- Temporary Disability

Underlying Contributors
PEER® eCard – Recognizing Potential SIFs

1. Could a Life-Threatening injury, Life-Altering injury, or Temporary Disabling injury reasonably be the result of the behavior?
   - YES
   - NO

2. Did the behavior involve a Failure of a Key Safety Procedure?
   - YES
   - NO

3. Could the behavior result in a Loss of Control of Powered Equipment?
   - YES
   - NO

4. Could the behavior have resulted in a Release of Significant Mass or Energy?
   - YES
   - NO

5. Could the behavior lead to an Electrical Shock?
   - YES
   - NO

6. Could the behavior have resulted in a Dropped or Falling object? Consider height/weight of drop.
   - YES
   - NO

7. Could the behavior lead to a Fire, Explosion, or Acute Chemical Exposure?
   - YES
   - NO

8. Could the behavior result in a Fall from Height or Activation of a Fall Arrest System?
   - YES
   - NO

9. Could the behavior lead to a Sharp Hand Tool or Powered Hand Tool slipping while performing a task?
   - YES
   - NO

Potential SIF

PEER® eCard – Root Cause Classifications

Under Management’s Direct Control

People Factors (Personal)
- Failures in Task Planning
- Failures in Task Execution
- Behavioural Choices
- Inadequate Competency
- Ineffective Leadership

System Factors (Organisational)
- Extreme Job Pressures
- Insufficient Manpower
- Inadequate Job Methods
- Inadequate Job Standards
- Poor Job Planning
- Insufficient Resources
- Poor Communications
- Lack of Support

Infrastructure Conditions (Environment)
- Poor Work Environment
- Sub-standard Equipment

Human Error

Underlying contributors’ reflect Root Cause Buckets and Safety Culture factors

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Implementing PEER® - Monitor Performance

- Give performance feedback to site personnel
- Focus on eliminating potential SIFs
- Fix Corrective Actions
- Keep senior management informed about progress
- Celebrate successes

PEER® eCard Behaviors - Quarterly Dashboard

<table>
<thead>
<tr>
<th>Behavioral Category</th>
<th>Last 4 Weeks</th>
<th>Last 3 Months</th>
<th>3-6 Months Prev.</th>
<th>6-9 Months Prev.</th>
<th>9-12 Months Prev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access and Egress</td>
<td>0.0%</td>
<td>52.1%</td>
<td>59.5%</td>
<td>59.0%</td>
<td>71.1%</td>
</tr>
<tr>
<td>Barriers</td>
<td>80.0%</td>
<td>85.7%</td>
<td>89.6%</td>
<td>58.0%</td>
<td>67.5%</td>
</tr>
<tr>
<td>Body Positioning</td>
<td>64.6%</td>
<td>81.4%</td>
<td>87.5%</td>
<td>56.1%</td>
<td>65.2%</td>
</tr>
<tr>
<td>Driving</td>
<td>0.0%</td>
<td>9.5%</td>
<td>86.7%</td>
<td>27.9%</td>
<td>86.3%</td>
</tr>
<tr>
<td>Environment</td>
<td>55.6%</td>
<td>51.7%</td>
<td>64.5%</td>
<td>52.5%</td>
<td>52.5%</td>
</tr>
<tr>
<td>Equipment Use</td>
<td>0.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>23.5%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Health</td>
<td>56.7%</td>
<td>33.1%</td>
<td>76.6%</td>
<td>57.6%</td>
<td>56.7%</td>
</tr>
<tr>
<td>Heavy Materials Handling</td>
<td>0.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Housekeeping</td>
<td>75.0%</td>
<td>83.5%</td>
<td>84.2%</td>
<td>78.5%</td>
<td>79.4%</td>
</tr>
<tr>
<td>Isolations/Purging</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Manual Handling</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Mechanical Lifting Operations</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Mobile Machinery</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>PPE</td>
<td>0.0%</td>
<td>91.4%</td>
<td>76.4%</td>
<td>53.4%</td>
<td>64.4%</td>
</tr>
<tr>
<td>Use of Tools</td>
<td>83.3%</td>
<td>66.0%</td>
<td>70.8%</td>
<td>52.5%</td>
<td>57.0%</td>
</tr>
<tr>
<td>Work Processes</td>
<td>77.8%</td>
<td>91.3%</td>
<td>90.1%</td>
<td>74.4%</td>
<td>83.3%</td>
</tr>
<tr>
<td>Overall Percent Safe Score</td>
<td>73.8%</td>
<td>85.0%</td>
<td>75.2%</td>
<td>58.0%</td>
<td>79.0%</td>
</tr>
</tbody>
</table>

Behavioral Buckets

Is people's safety behavior improving? Look at the difference in Percent Safe Scores over the past year. Have they got tighter? If so, is there a reason to celebrate? If not, is there serious cause for concern? Which Behavioral Categories do the Safety Leaders need to focus on?
PEER® Behavior Based Safety Leadership

**PEER® eCard Graphical Feedback - Unsafe Behaviors Observed**

Cumulative Breakdown of Unsafe Behaviors

This pie graph below provides an overview of the unsafe behaviors observed in their different behavioral categories. This tells you which category of behaviors has been observed as the most unsafe. The larger the percentage score, the more unsafe that category of behaviors has been.

**PEER® eCard Root Causes - Quarterly Dashboard**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Choices</td>
<td>6</td>
<td>19</td>
<td>48</td>
<td>45</td>
</tr>
<tr>
<td>Failures In Execution</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Failures in Task Planning</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Competency</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Leadership</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Job Pressure</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Lack of Manpower</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Job Methods</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Job Standards</td>
<td>2</td>
<td>12</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Job Planning</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Resources</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Poor Communications</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Support</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Poor Work Environment</td>
<td>2</td>
<td>7</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Equipment</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Reviewing the 'Potential Incident Contributors' (highlighted in red) will help dramatically improve your safety performance. The 'Potential Incident Contributors' refer to the underlying issues involved in many workplace injuries / incidents. Reviewing and actioning them will help to avoid injuries, and also help to improve the efficiency and reliability of your operations.

**Underlying Contributors**
PEER® eCard Graphical Feedback – Root Causes

Cumulative Breakdown of Underlying Issues

This pie graph provides an overview of the issues discussed during a PEER® observation by various categories. This tells you which Underlying Issues represent a problem, and the size of that problem. The larger the percentage score for a category, the more that issue is / or has been a problem (any corrective actions may have been taken.) Reviewing and acting on these issues will help to avoid injuries, and also help to improve the efficiency and reliability of your operations.

Cumulative Breakdown of Underlying Issues

- Behavioral Choices
- Failures in Execution
- Failures in Task Planning
- Competency
- Leadership
- Job Pressures
- Manpower Levels
- Job Methods
- Standards
- Job Planning
- Resources
- Communications
- Support
- Poor Work Environment
- Sub-standard Equipment

PEER® eCard - Quarterly Dashboard SIFs

Potential SIFs by Underlying Issues

This table provides you with an overview of the underlying issues associated with potential SIFs reported for the past 4 weeks and the past year. They reflect behavioral, system and environmental causes. The numbers represent how many Potential SIFs have been reported in the last 4 quarters and the past 4 weeks. You should compare the numbers for each quarter to ensure there is a downward trend. Are the numbers reported for each underlying issue less than that for the previous quarter? If not, you should review the records for that underlying issue to identify what is happening and address the problem(s).

Potential SIFs X Underlying Contributors

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Cumulative Breakdown of Potential SIFs by Underlying Issues

This pie graph provides an overview of the underlying issues associated with all potential SIFs reported. They reflect behavioral, system and environmental causes. The percentage for each category represents the size of the problem. The larger the percentage score for a category the more that category represents a problem that needs attention. Reviewing the issues so they can be eliminated will help to avoid the potential SIFs while also improving the efficiency and reliability of your operations.

Record Managerial Commitment Behaviors

Create Individual Safety Commitment Checklists & monitor—If desired
Monitor User Participation Trends

PEER®
Overall % Leadership trend and Number completing 10 commitments

Percentage of available users who completed 10 commitments
Overall % Safety Leadership displayed

Monitor User Participation by Time & Location

PEER®
Number of completed checklists by Week, Level & Source

Data Filtering Parameters
All available dates requested
Available dates are from 28 June 2016 to 26 August 2017
All available types requested
Available types are: Front Line Management, Safety Inventory
All available locations requested
Available locations are: Spartan Group, Corporate Services, SPE Services, Athens/Georgia

<table>
<thead>
<tr>
<th>Group</th>
<th>Company</th>
<th>Site</th>
<th>Location</th>
<th>User</th>
<th>Front Line Management</th>
<th>Safety Inventory</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spartan Group</td>
<td>Spartan Inc</td>
<td>Administration</td>
<td>Office</td>
<td>Safety, Leader, Superv</td>
<td>22</td>
<td>13</td>
<td>36</td>
</tr>
<tr>
<td>Spartan Group</td>
<td>Spartan Inc</td>
<td>Corporate Services</td>
<td>SPE Services</td>
<td>Jason, Brian</td>
<td>15</td>
<td>5</td>
<td>15</td>
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<tr>
<td>Spartan Group</td>
<td>Spartan Inc</td>
<td>Corporate Services</td>
<td>SPE Services</td>
<td>Athens/Georgia</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Spartan Group</td>
<td>Spartan Inc</td>
<td>Bazo</td>
<td>Fraser</td>
<td>Bob, Michael</td>
<td>47</td>
<td>36</td>
<td>99</td>
</tr>
<tr>
<td>Spartan Group</td>
<td>Spartan Inc</td>
<td>Athens</td>
<td>Main Office</td>
<td>Greg Columbus</td>
<td>63</td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>Spartan Group</td>
<td>Spartan Inc</td>
<td>Athens</td>
<td>Main Office</td>
<td>Greg Columbus</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

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Record Specific Safety Behaviors

Create Individual Safety Behavior Checklists & monitor— If desired

PEER® Complete checklists

Enter checklist data

Maintenance Crews
Spartan Group: Spartan Group
Company: Spartan Inc
Location: Franklin, Frankl
Phone: Office

A M S
Safety Leader (safety leader): Date: 03-Aug-2017

1. Tools and Equipment
- Personal are using tools that are in good condition: Yes No NA
- Personal are using tools only for the purpose for which they were designed: Yes No NA
- Personal are not using damaged or overloaded tools: Yes No NA

Category 1: When using a ladder or working from a height:
- Personal are using the ladder or working at a height:
  - No protective headgear: Yes No NA
  - Using other personal protective equipment: Yes No NA
  - Turning off the ladder before setting the first step: Yes No NA

Category 2: Housekeeping
- Personal are wearing approved,符合 safety regulations:
  - Personal are not using matches to start fires: Yes No NA
  - Personal are not using aerosol cans to start fires: Yes No NA
  - Personal are not using cans of compressed air to start fires: Yes No NA

Category 3: Personal Protective Equipment
- Personal are not using PPE that is damaged:
  - Personal are not using PPE with holes in it: Yes No NA
  - Personal are not using PPE that is too small for the user: Yes No NA
  - Personal are not using PPE that is too big for the user: Yes No NA

Weekly Reports on Specific Safety Behaviors

Weekly Feedback Report

<table>
<thead>
<tr>
<th>Group</th>
<th>Spartan Group</th>
<th>Company</th>
<th>Spartan Inc</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check list type: Safety Behavior</td>
<td>Spartan Inc</td>
<td>Checklist name: Safety Behavior</td>
<td>Spartan Inc</td>
<td>Random</td>
</tr>
</tbody>
</table>

Description | Yes | No | NA | % Score |
---|---|---|---|---|
Personal are using tools that are in good condition | 1 | 0 | 0 | 100.00%
Personal are using tools only for the purpose for which they were designed | 1 | 0 | 0 | 100.00%
Personal are not using damaged or overloaded tools | 1 | 0 | 0 | 100.00%
Personal are wearing the ladder or working at a height | 1 | 0 | 0 | 100.00%
Personal are using the ladder or working at a height | 1 | 0 | 0 | 100.00%
Personal are using the ladder or working at a height | 1 | 0 | 0 | 100.00%
Personal are using approved,符合 safety regulations | 1 | 0 | 0 | 100.00%
Personal are not using matches to start fires | 1 | 0 | 0 | 100.00%
Personal are not using aerosol cans to start fires | 1 | 0 | 0 | 100.00%
Personal are not using cans of compressed air to start fires | 1 | 0 | 0 | 100.00%
Personal are wearing approved,符合 safety regulations | 1 | 0 | 0 | 100.00%
Personal are not using PPE that is damaged | 1 | 0 | 0 | 100.00%
Personal are not using PPE with holes in it | 1 | 0 | 0 | 100.00%
Personal are not using PPE that is too small for the user | 1 | 0 | 0 | 100.00%
Personal are not using PPE that is too big for the user | 1 | 0 | 0 | 100.00%
Total | 1 | 0 | 0 | 100.00%

Best Scoring Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>% Score</th>
</tr>
</thead>
</table>
| Personal are not using tools | 1 | 100.00%
| Personal are using tools only for the purpose for which they were designed | 1 | 100.00%
| Personal are not using damaged or overloaded tools | 1 | 100.00%
| Personal are not using matches to start fires | 1 | 100.00%
| Personal are not using aerosol cans to start fires | 1 | 100.00%

Worst Scoring Items

<table>
<thead>
<tr>
<th>Item</th>
<th>No</th>
<th>% Score</th>
</tr>
</thead>
</table>
| Personal are using tools | 0 | 0.00%
| Personal are not using tools | 0 | 0.00%

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Typical PEER® results ....

Consistently Improve Safety Behavior

Reduce Incident Rates

PEER® Training

BSMS Trainers one-day 'in-house' workshops to train people in PEER® safety observations and conversations.

The PEER® safety leadership training covers:
• Understanding process safety hazards and how to identify them
• The association between behavior and process safety
• Identifying workplace behaviors that could cause serious injuries (SIFs) or process safety incidents
• Developing successful communication skills
• Effectively engaging with people
• Recording safety observations and conversations in the PEER® safety leadership software
• Practical on-site observations & conversations in your facility

Train the Trainer Approach
We can help prepare and certify your Company’s own internal consultants to design and implement PEER at multiple locations under a license agreement with BSMS. After completing our certification process, internal consultants can lead future implementations and adjust the process as necessary without any further assistance.
PEER® Behavior Based Safety Leadership

PEER® Software

- **Hosted on secure https server (https://peer-leader.com)**
  - User Friendly: PEER® results in high end-user participation rates
  - Flexible: PEER® can be configured for all industries and safety processes
  - Scalable: PEER® supports safety from a single site to a multi-site global rollout
  - Boundless: Unlimited Users per site license
  - Support: Technical support staff quickly respond to customer feedback and questions

Next Steps ......

- **Contact BSMS**
  - Ask Questions?
  - Request a written proposal?
  - Request PEER® training?

  • E-mail: info@bsms-inc.com