Generating a Safety Culture in Construction: How to Create a Safety Step-Change

Many construction managers often face the seemingly insurmountable task of creating and maintaining a safety culture though varying conditions, ever changing craft and increasing schedule demands. One common method of assessing the safety of construction projects is through the use of site audits, inspections or observations. Although quite commonly done, many projects struggle getting quality data and then using their observation intelligence to predict and prevent incidents. Furthermore, many miss the opportunity of impacting their site-based safety cultures by providing quality feedback to their project staff and contractors.

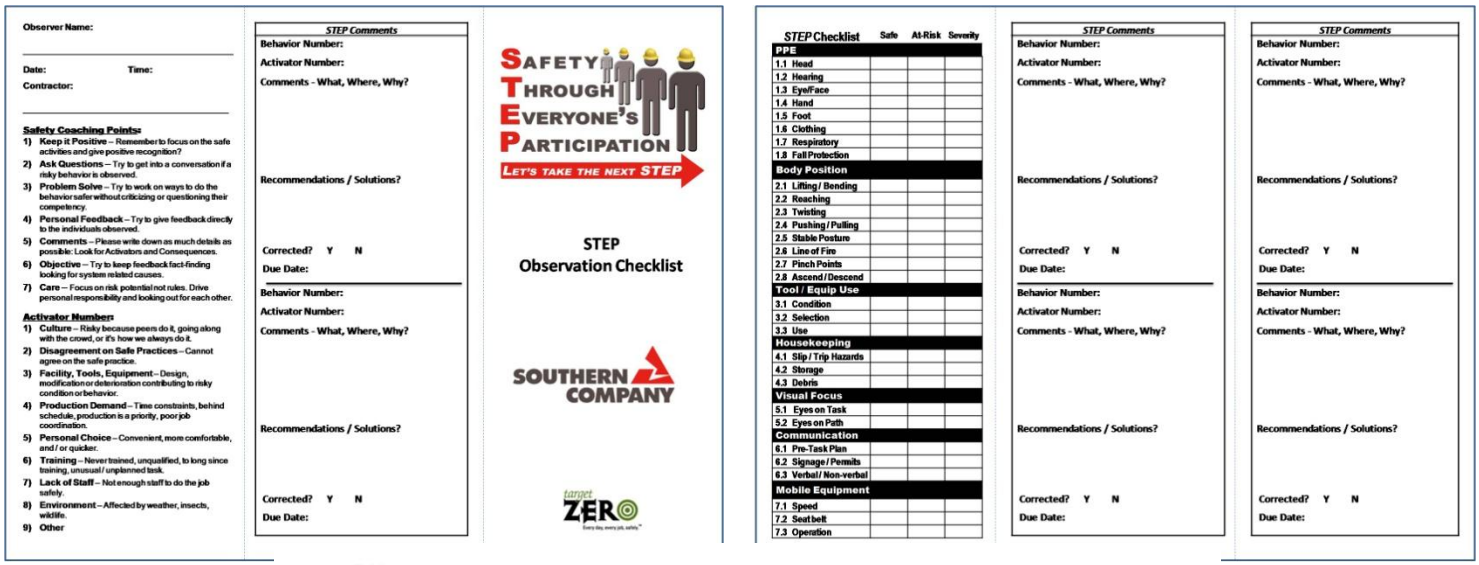
This nomination will provide a case study outlining the steps Southern Company's Generation Engineering and Construction Services took to build a new safety process and the successes that followed. The goal is to outline the innovative methodology in getting leadership engagement and the use of technology to make a difference in a construction safety culture.

Safety Step-Change Methodology

STEP Development. Before any process design work began, the upper levels of the Engineering and Construction Services leadership team needed to be convinced that designing a new process was the right approach to affect the lagging indicators. There was a tremendous "vetting" during the assessment phase that took place from June 2009 to October 2009. This assessment pointed out potential barriers and enlightened certain aspects of the current safety culture that needed to be addressed to make a new safety observation process truly successful. There was also a large time and economic commitment by the leadership team to create this new process. The Design Team was made up of 20 employees; half of which were safety professionals and the remaining half being production team members. The Design Team was very diverse with an Executive Sponsor (VP Level) and several other layers of management on the team: Discipline leads, Coordinators, Safety Pros, Regional Managers and Site Managers. The overall effort was led by a production member (not a safety professional) that gave great weight to the Design Team in the eyes of the employees. It was important for them to understand that this effort was not simply coming from the safety department or that it was an edict from management. Knowing that one of their team members was leading the effort gave them a sense of ownership and helped to spur engagement. Following four days of safety process design work, the team finalized the newly name STEP Process: Safety Through Everyone's Participation.

STEP Rollout. Following the three month pilot, a timeframe was developed to roll out the STEP process to the entire construction organization. Again, the decision was made to have all of the training done by one individual in a live classroom setting to ensure consistency. The training and education for the STEP process was conducted by the STEP team's facilitator who was part of operations and again not part of the safety team. Part of the rollout was entering the observational data into a predictive modeling database (SafetyNet). These observations could be entered via computer or smart phone. The data was then able to be shared to project staff and senior level

Engagement. The biggest obstacle to the STEP process was the reluctance of the leaders to engage the craft and contractors. The previous culture was geared not to talk to the craft with a very "hands off" approach. This was the mindset from the legal team and was ingrained in our leadership. There are some very valid reasons on how to avoid co-employment issues and this was investigated, a solution worked out with the legal team and was incorporated into the STEP training. SafetyNet's predictive analytics also helped assess the quality of the observations and then provide that feedback to the observers. We logged 1 million behaviors on February 8, 2011 using the STEP process. Our OSHA recordable rate for all our construction sites for 2010 decreased an incredible 51% over the 2009 results.



Observer Name:

Date: Time:

Contractor:

Safety Coaching Points:

1) **Keep it Positive** – Remember to focus on the safe activities and give positive recognition!
2) **Ask Questions** – Try to get into a conversation if a risky behavior is observed.
3) **Problem Solve** – Try to work on ways to do the behavior safer without criticizing or questioning their competency.
4) **Personal Feedback** – Try to give feedback directly to the individuals observed.
5) **Comments** – Please write down as much details as possible. Look for Activators and Consequences.
6) **Objective** – Try to keep feedback fact-finding looking for system related causes.
7) **Care** – Focus on risk potential not rules. Drive personal responsibility and looking out for each other.

Activator Number:

1) **Culture** – Risky because peers do it, going along with the crowd, or it's how we always do it.
2) **Disagreement on Safe Practices** – Cannot agree on the safe practice.
3) **Facility, Tools, Equipment** – Design, modification or deterioration contributing to risky condition or behavior.
4) **Production Demand** – Time constraints, behind schedule, production is a priority, poor job coordination.
5) **Personal Choice** – Convenient, more comfortable, and / or quicker.
6) **Training** – Never trained, unqualified, to long since training, unusual / unplanned task.
7) **Lack of Staff** – Not enough staff to do the job safely.
8) **Environment** – Affected by weather, insects, wildlife.
9) Other

STEP Comments

Behavior Number:
Activator Number:
Comments - What, Where, Why?
Recommendations / Solutions?
Corrected? Y N
Due Date:

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SAFETY THROUGH EVERYONE'S PARTICIPATION
LET'S TAKE THE NEXT STEP

STEP
Observation Checklist

SOUTHERN COMPANY

target ZERO

STEP Checklist

	Safe	At-Risk	Severity
PPE			
1.1 Head			
1.2 Hearing			
1.3 Eye/Face			
1.4 Hand			
1.5 Foot			
1.6 Clothing			
1.7 Respiratory			
1.8 Fall Protection			
Body Position			
2.1 Lifting / Bending			
2.2 Reaching			
2.3 Twisting			
2.4 Pushing / Pulling			
2.5 Stable Posture			
2.6 Line of Fire			
2.7 Pinch Points			
2.8 Ascend / Descend			
Tool / Equip Use			
3.1 Condition			
3.2 Selection			
3.3 Use			
Housekeeping			
4.1 Slip / Trip Hazards			
4.2 Storage			
4.3 Debris			
Visual Focus			
5.1 Eyes on Task			
5.2 Eyes on Path			
Communication			
6.1 Pre-Task Plan			
6.2 Signage / Permits			
6.3 Verbal / Non-verbal			
Mobile Equipment			
7.1 Speed			
7.2 Seat belt			
7.3 Operation			

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