

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

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I. Introduction

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 paper 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 share the strategies and pitfalls of beginning a Safety Step-Change process, while outlining the strategies for maintaining and sustaining the initial momentum often following a new initiative. The article will further discuss the improvements of their quality of site inspections, their increased the level of leadership engagement with their craft, and the reduction in how many people went home hurt.

II. Safety Step-Change Methodology

Creating the Climate for a Step-Change

The key to obtaining long-lasting sustained improvements is first creating a climate for change. Without proper preparation, change efforts will have a limited hold at best. Thus, creating the climate for change is one crucial step Southern Company invested in heavily. Before organizations implement any change, there needs to be a sense of "urgency" developed around the upcoming efforts. Without urgency, people are more likely to keep doing "what we've always

been doing” and then keep getting what they always have been getting. Secondly, to steer the change, there needed to be a design team built of change leaders comprised of formal (as well as informal) leaders who were willing to “stick it out” to see the change become a reality. Lastly, the design team needed to create a vision to give a focus for their efforts.

Enabling the Step-Change

Once you gain the urgency, develop a team and set the vision, you can begin rolling out the new initiative. Southern Company’s vision of making a step-change in their safety performance became their “call-to-arms” as the name of their new process: S.T.E.P. (Safety Through Everyone’s Participation). Before rolling out the STEP process, Southern Company chose three pilot projects to begin their efforts. First, they had to communicate their vision of a step-change to these sites by providing education and training to all Southern Company employees. Once the pilots began, feedback was elicited and any potential barriers (be them perceived or real) to success were removed. The three- month pilots experienced success and gained momentum for the rest of the rollout of the STEP process.

Sustaining the Change

Any organization that has implemented any new initiative is faced with the same challenge: sustainability. In the past two decades, safety has undergone a plethora of new “programs” and any new initiative is simply seen as the next “flavor of the week”. Many employees who are inundated with such programs believe that if they wait long enough, the new initiative will soon be replaced by the next “better and more improved” program. The key to sustainability is creating a “process” that does not have a beginning and an ending (like a program), but evolves with the culture and is truly a continuous improvement initiative. So, to anchor the change within the culture, “planned spontaneous” small-win celebrations were used to sustain momentum and gain the flywheel effect to keep the urgency and keep the employees engaged in the STEP process.

III. Southern Company - History and Background

Southern Company History

With 4.4 million customers and more than 42,000 megawatts of generating capacity, Atlanta-based Southern Company is one of the major energy companies serving the southeast. As a major producer of electricity, Southern Company owns electric utilities in four states, as well as fiber optics and wireless communications. Southern Company is comprised of four retailing operating companies: Alabama Power, Georgia Power, Gulf Power and Mississippi Power. Employing over 26,000 employees and serving over 120,000 square miles, Southern Company is one of the largest producers of electricity, ranking 149th on Fortune 500 list of largest corporations in the United States. Furthermore, Southern Company has also been listed as the top-ranking electric service provider in customer satisfaction for nine consecutive years by the American Customer Satisfaction Index.

Engineering and Construction Services

Engineering and Construction Services serves as the technical arm for Southern Company Generation with regard to providing design, engineering, and construction management services to Alabama Power, Georgia Power, Gulf Power and Mississippi Power.

Southern Company Background. Southern Company’s Engineering and Construction Services’ safety performance (as measured by lagging indicator, incidence rates) was very stagnant for several years. There were years of measured improvement but no real culture change. There was

no real perceived safety improvement, and the feeling of reaching a plateau created a sense of urgency to begin a step-change in their safety processes. As a result, in 1996 a program focusing on safety-related behaviors through site observations was initiated but did not achieve the intended result. There was little engagement and no one saw the value in collecting the observations. The Construction Safety Leadership Team (CSLT) began looking at other possibilities, focusing on behavioral observations. The CSLT decided to once again partner with Predictive Solutions to help create momentum in 2009 to help evolve their current observation program by having an internal team design their own process and not just buy another “canned” safety program.

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 whom 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, led by Predictive Solutions, the team finalized the newly name STEP Process: Safety Through Everyone’s Participation.

IV. STEP – Safety Through Everyone’s Participation

STEP Pilots

Before the STEP process was rolled out to all the current projects, pilot projects were selected. For the pilots, the team chose the largest and most difficult projects. These were also the sites having the most injuries. These projects were chosen because they needed the most help and because if the STEP process had success at these locations, it would work anywhere. The training was also done by one person to ensure consistency of the process. These pilot STEP workshops also served as a train-the-trainer for the STEP’s facilitator, who would then roll out the process to the remaining projects. In order to make the classes effective it was necessary to limit them to 20 people or fewer. Also the time commitment of 8 hours made it difficult to schedule and keep everyone in class, considering the normal heavy workload. It is important to note that the team did not give the sites a “finished” product. The team rolled out the “framework” or skeleton of the system and asked the teams to “flesh out” the system and make suggestions as to what worked and did not work, and then changed the system based on their feedback. The end result was a unique system that was designed to fit specific business needs of Southern Company’s Engineering and Construction Services. The pilot locations provided feedback in the design and thus had buy-in and a sense of ownership of the process. This was a key element in making the STEP process work.

STEP Rollout

Following the three-month pilot, a time frame 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. The training was challenging, since the projects were scattered over four states and required much travel and coordination. It took four months to complete the workshops and bring all of the sites online. This phased rollout allowed the team to continue to tweak the process and the training for effectiveness. By the start of the summer, all sites were active and the attention turned to assessing the quality of the observations and the use of the leading indicators.

STEP Follow-up

During the initial training and pilots, classes were held to train a set of trainers for each site. These classes were facilitated by Predictive Solutions and each team sent a safety team member and a production team member. During the site training sessions, the trainers sat in and helped facilitate the exercises for the main trainer. Each trainer attended at least three classes prior to training anyone themselves. This gave them an opportunity to hear the material multiple times and helped them to understand the goals and aim of the class. Following the complete rollout, they were equipped to run the process at the site and to train any additional members that came on board after STEP was up and running.

After the initial rollout, the STEP team discovered that some sites started quickly and had their program up and running almost immediately following the training period. Other sites, however, struggled and had problems in participation and utilization of the leading indicators. The team determined that the sites that had the most trouble had not had a participant on the original design team, while those sites that did, had a jump start on the process. Those projects and their teams had been informed during the design and pilot stages and had a good understanding of the goals of the STEP process. The lesson learned was that it was critical to have every site represented to ensure consistent understanding and engagement across the system. As a result, the teams that were struggling required much more attention and more follow-up sessions to instruct them as to how to use the data and how to encourage greater participation.

STEP Sustainability/Next Steps

After 12 months, a STEP Sustainability Team was recruited with at least one team member from every project. This team met in person on several occasions and holds conference calls at least monthly to discuss results and issues. This forum allows each site to share best practices with the team and share concerns. A web page was developed and a monthly newsletter was started to highlight a different site each month. The STEP Sustainability Team was formed and met to establish 3- and 5-year plans to ensure this process did not become a "flavor-of-the-week." The new team consists of half new members to further the reach of STEP process and half original members to ensure the legacy is carried on (with an actual STEP Baton being passed on to the new team facilitator). The team also had several speakers at the annual Contractor's Safety Forum to discuss how the contractors could assist in and participate/benefit from the process.

IV. STEP Results

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, and a solution was worked out with the legal team and was incorporated into the STEP training. This was the biggest change for some of the employees. There still are a few that are reluctant, but leaders are steadily chipping away at that mindset; cultures do not change overnight. The STEP process did an amazing job in creating the opportunity for the “conversation” with the craft and contractors. The caring conversation was strongly addressed in the STEP workshops. It is the single most important part of STEP; the engagement and intervention that takes place person to person every day.

Measuring Leading and Lagging

Southern Company set goals for our trained staff to conduct observations and then were measured against that goal. We used Predictive Solution’s SafetyNet predictive analytics to help us assess the quality of the observations and then provide that feedback to the observers. We logged one 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.

STEP Visibility

To ensure the perceived value of STEP was reinforced, the results from the observations, tracking of open issues, and the successes were continuously discussed at all meetings and communication from the corporate safety staff. Various promotional items such as vests, decals, badge holders, STEP cards and pedometers were distributed as reminders and process visibility techniques. STEP videos were featured in company-wide newsletters and intranet sites. The biggest visibility came through our outcome statistics: sending fewer people home hurt. Furthermore, as other business units saw sharp rises in incidents throughout 2010, the Engineering and Construction Services saw the largest one-year drop in incident rate in Southern Company’s history. This began to get noticed by other management teams, since the work is normally more risky and our risks traditionally led to higher injury numbers than the other units. The results ended up selling the process, and now every business unit is asking for help in seeing how they can implement the STEP process for their use.

Marketability

The team has also been able to share the STEP Process and results with numerous groups, with the Engineering and Construction Services group winning the Construction Users Roundtable Construction Industry Safety Excellence Award in 2010 for our STEP Process.

V. Summary – Keys to Success

Creating the Climate for a Step-Change

One of the reasons for the success obtained by Southern Company was the time spent up front to

create the climate for the safety step-change. Before any new safety process was designed, a safety culture analysis was conducted, revealing issues that helped guide the creation of the STEP process as well as the communications of results. As there had been several years of flat performance, with regards to recordable rates, there was a strong sense of urgency to make a better site-based safety culture for their employees and contractors. The other major contributor to a successful rollout was the interdisciplinary make-up of the design team, including a team facilitator from the operations side of the business. The team already had a corporate safety vision of Target Zero, although they evolved the meaning from zero injuries to zero risky behaviors. Again, this is reflective of the advancement made in the safety culture.

Enabling the Step-Change

One lesson learned was to ensure all parties involved in the change effort are represented in the design team make-up. Although the training was the same across locations, the projects with the STEP team members experienced a quicker change in culture. Another factor in the success was to make sure the observation intelligence collected was shared and made relevant to the people participating in the process. Without this essential communication, fewer participants would have seen the value in the observations (this also helped with the accountability aspect).

Sustaining the Change

Any organization that has implemented any new initiative is faced with the same challenge: sustainability. Southern Company is currently working to ensure sustainability by anchoring the STEP process into their culture through the formation of a new team, and consistent reports and newsletters. The most important outcome of the STEP process is hurting fewer people, getting in front of error-likely situations and proactively creating a safer culture. With great results, engaged leadership and a focus on the future, Southern Company is well on their way to evolving their safety culture from a great one to a world-class one.