

BEST PRACTICES SAMPLING: A PARTICIPATORY APPROACH TO IMPROVED CONSTRUCTION SAFETY PERFORMANCE

Steven Hecker, Associate Professor, Labor Education and Research Center, 1289 University of Oregon, Eugene, OR 97405, shecker@oregon.uoregon.edu (contact)

Billy Gibbons, Ergonomist, Labor Education and Research Center, 1289 University of Oregon, Eugene, OR 97405, ergobill@aol.com

ABSTRACT:

Worker involvement is widely seen as a key factor in improving safety and ergonomic performance. The transient nature of construction sites presents particular challenges to implementing and maintaining such participation. Toolbox meetings, safety committees, and suggestion systems are traditional means of worker involvement but they usually don't achieve the level of worker involvement or ownership of safety sought by contractors pursuing "injury free" workplace cultures. Best Practices Sampling (BPS) was developed as a crew-driven performance management approach to safety on construction sites that builds worker involvement into the daily work of the site. In a facilitated process the crew or work team develops a list of best practices required for safe performance of their work tasks. All crew members then participate in daily collection of samples of practices over a defined period to establish a baseline performance. The crew then identifies critical practices to target for improvement and sets performance goals. Further sampling measures performance over time against the criteria established by the crew. The data obtained is fed back into the process to determine where improvement has been made and which practices continue to need targeting. The process also identifies factors that lie outside of the crew's control and where intervention at other levels of the construction project is necessary. BPS requires management support but is based on maximum worker involvement.

The BPS process is hypothesized to improve safety performance by

- maximizing worker involvement and ownership of safety
- capitalizing on the collective knowledge of workers
- building safety awareness into daily work activities so that safety and ergonomics is fully integrated into the planning of work
- promoting a positive rather than punitive approach
- creating continuous feedback on safety performance.

BPS was implemented on an industrial construction site on a pilot basis with six subcontractors working under a single general contractor. Effectiveness of implementation varied among crews and contractors. Important factors included:

- Quantity and quality of worker training
- Management understanding of and commitment to the process
- Specific management support to crews
- Workers' trust or lack thereof in how the sampling data would be used

- Ability to bring new workers into the process
- Ability to handle data collection and analysis

A fuller implementation is planned using lessons learned from the pilot. This includes:

- Building the costs of subcontractor participation, including training, into bid packages
- Upfront clarification of roles of workers and subcontractors
- A preestablished user-friendly data collection and analysis system
- Ongoing coaching and facilitation to get through the bumps in the process
- Outreach to workers to address concerns about how data will be used
- Insuring rapid feedback from management to crews on issues they identify in their observations.

The paper will present preliminary findings on implementation and outcomes from this next phase based on worker and subcontractor questionnaires and interviews and participant observation.