



Bulletin

Proactive Safety Approach

INTRODUCTION

Positive – Awareness – Coaching – Teamwork (P.A.C.T.) is a proactive approach to safety in the workplace. It developed from one company's dedication and commitment to making safety a top priority. This guide will help your company develop a comprehensive safety plan or improve an existing one.

P.A.C.T. was developed by Nooter Construction Company (Bensalem, PA) over a six-year period, beginning in 1996. The company designed the program to be comprehensive and to involve all employees, from top management down. **P.A.C.T.** was to become an integral part of Nooter's corporate culture.

Most important, however, is that **P.A.C.T.** is effective. Before the program was initiated, Nooter's Recordable Incident Rate was 6.7; by the end of 2001, the rate had dropped to 1.89.

In recognition of its achievement, MCAA presented Nooter with the **2002 E. Robert Kent Award for Management Innovation at MCAA 2003**. In the spirit of the award, this bulletin describes the components of **P.A.C.T.** so that the industry may benefit.

POSITIVE

Positive stands for a proactive safety attitude, focused on planning, rather than reacting to, project safety issues. Through positive reinforcement of the plan (i.e. rewarding execution through incentives), the program becomes self-sustaining.

The first steps in implementing the **P.A.C.T.** program involve an internal review of a company's existing safety incentive program to determine how it could be strengthened to achieve 100 percent effectiveness. The plan should take into account all of the levels of the company's safety program, its procedures, as well as basic benchmarks (i.e. Zero Recordable Incidents). The plan should also incorporate team-based awards to foster the teamwork concept. An important component is to reward employees for safe behaviors when they occur.

Finally, the company philosophy should revolve around positive reinforcement. A key element behind the success of the **P.A.C.T.** program is that employees feel comfortable identifying safety issues without fear of retribution. Open communication between managers and employees is, therefore, essential.

AWARENESS

Awareness stands for a new mindset among all members of a project. This is accomplished by educating project managers about the company's safety expectations.

Using the **P.A.C.T.** principals, Nooter created a *Performance Evaluation Table* which assesses the teams' overall participation in the program (see Exhibit A). Each row represents a specific *Performance Indicator* crucial to the success of the overall program, and each Performance Indicator is weighted according to its affect on the overall process. The Performance Indicators are as follows:

- **Recordable Incident Rate:** All injuries that can be recorded.
- **Total Incident Rate:** The total number of incidents, including minor injuries (i.e., such as those requiring First Aid).
- **Near Miss Report:** All possible incidents.
- **Foreman Training:** Evaluates the foremen and how well they understand the **P.A.C.T.** process (See Coaching below):
- **Craft Training:** Evaluates the employees on a specific project, their initial, as well as continual, training throughout the project.
- **Job Pre-Plan:** Completion of two major documents – *Site Specific Safety Plan* and *Job Hazard Analysis*.
- **Job Safety Analysis:** This dynamic document is the heart of the **P.A.C.T.** process and determines how well defined safety concerns are on a specific project.
- **Inspections:** Indicates how often audits are performed on the process (it is recommended that audits be performed weekly).

- **Surveys:** Performed by craft employees to foster continual improvement in the **P.A.C.T.** process.
- **Lessons Learned:** After a project is completed, the project team meets to discuss safety procedures that worked well and those that need improvement. The resulting information is shared with all company employees to promote more effective safety procedures on projects.
- **Cooperative Committee:** A monthly review across all levels of management and customers regarding the **P.A.C.T.** process.

Foremen/supervisors evaluate the teams' performance in each of the Performance Indicators and scores are given indicating proficiency. To obtain a score, the foreman/supervisor uses his/her best professional judgment in choosing the Performance Level that pertains to the proficiency achieved in each of the Performance Indicators and then multiplies it times the weight assigned. The score provides a benchmark as teams/individuals/projects develop their safety proficiency. The score also indicates areas where teams require additional training.

COACHING

Coaching is about improving the safety skill sets of all project members. Through foremen training in hazard recognition, as well as an effective job plan (also known as a Job Safety Analysis (JSA), crew members learn how to identify job site hazards and prevent accidents. If a job accident was to occur, foremen and crewmembers are not only trained to participate in incident investigations, but also are able to learn from them.

This training is conducted by the project superintendent, the onsite safety representative, and the regional safety manager. Before each job begins, all the

foremen receive this training and participate in the pre-job walk-through.

The **main points** stressed during the Foreman Training are as follows:

- **Foremen's role** during the project
- **Lead by Example**, such as complying with all safety rules, procedures, and policies; report and correct unsafe conditions in the workplace; ensure employees report all incidents; and make sure injuries are treated promptly.
- **Hazard Analysis**, which includes identifying hazards that the crew will encounter, hazards that the owner/general contractor can control, as well as job specific concerns that should be addressed before the crew begins to work at a job site.
- **Job Safety Analysis**, a dynamic document that reviews critical activities to be performed on the job site at any given time. The JSA is reviewed at the beginning of the shift, as well as at mid-shift. It allows the foremen to communicate to the crew the hazards associated with the day's activities and the controls that will be used to eliminate or lessen the degree of the hazard present. This process ensures that the necessary **measures** will be put in place to protect the crew at all times during the workday. These measures are as follows:
 - **Engineering**, which looks at ways to eliminate or reconfigure certain tasks to reduce possible hazard exposure.
 - **Substitution**, which can recommend a lesser hazard potential process to the crew.
 - **Personal Protective Equipment**, which, as a last resort, protects the crew from the hazard itself.
- **Inspections must be performed** to maintain the integrity of the JSA. The corrective action of the inspections of both materials and personnel fall into the 3-T's: **Treat** (fix the item), **Terminate** (remove the item), and/or **Tolerate** (warn the employee of the hazard and take steps to mitigate potential incidents until it can be eliminated). Sample inspections/audits could cover the following:
 - Fire protection
 - Housekeeping,
 - Compressed gas
 - Electrical
 - Rigging
 - Overhead crane use
- **Incident Investigation deals with the JSA.** However, this is where the foreman can receive the proper forms to record all of the facts associated with an incident. Team attitude should be to communicate all information. Defining fault is not the primary purpose of the Incident Investigation.
- **Emergency Response**, which details the company's emergency response plan. At a minimum, it should include the following:
 - **Shutdown** all ignition sources;
 - **Evacuate** to primary meeting area;
 - Immediate supervisor shall **take roll of crew present** and report to superintendent;
 - **Resume work** once all is clear.

In summary, the foremen need to realize the importance of their daily interaction in the field. This is stressed through emphasizing that the foremen must lead by example, review any hazards present, attempt to control or abate these hazards, inspect the jobsite daily, keep accurate incident investigations, and have an emergency response plan known to all jobsite crew. By maintaining a safe work environment using the **P.A.C.T.** approach,

the foremen will realize that the results of their actions will have a positive impact on their project, the company, and most importantly, will aid in reducing incidents, injury costs, and downtime.

TEAMWORK

Finally, **Teamwork** stands for the ability to improve the safety teamwork for all parties involved in a project. This is accomplished by establishing an onsite safety communications committee that works with all levels on a project to abate any hazards before work begins.

FEEDBACK/DEVELOPMENT

To ensure continual improvement in safety performances, "Safety Perception Surveys" should be developed to elicit feedback from employees, customers, and subcontractors. Completed anonymously, participants can offer honest feedback on a variety of topics including:

- Knowledge and understanding of management's safety goals
- Employee involvement
- Communication of the safety message
- Corrective action when problems are presented
- Rewards/motivation to participate

Moreover, in-house reviews of projects complete the process by bringing out valuable learning points, re-emphasizing positive characteristics of the JSA, reviewing and extrapolating better ideas for the field, and communicating these ideas back to the team while reinforcing the team concept. Major topics of discussion can include:

- **Safety:** How effective were the safety rules, JSA?
- **Quality:** Did the process allow for a better quality project?

- **Contracts:** From bid to turnover, were there any issues that needed review?
- **Scheduling:** Was there full buy-in on the overall plan of the project?
- **Accounting:** Were cost controls in place and reviewed?
- **Field Service:** Were tools orderly, proper, and timely received?
- **Rigging:** Was the rigging performed safely and without incident?
- **Execution:** Overall, what aspects of the project (manpower, communication, problem solving, etc.) were positive, and what aspects needed more work?
- **Customer Review:** What concerns or issues were effective? Where should changes be made to improve interaction with this customer?

ADDITIONAL RESOURCES

As you develop or enhance the curriculum for the safety training component of your company's **P.A.C.T.** program, consider using the safety training resources available from MCAA. Visit www.mcaa.org/store to download our latest catalog or sign in to the members-only online store. (To obtain a password for the store, visit www.mcaa.org/password.)

Management Methods Manual Bulletin SF 1, What's Involved in a Company Safety Program.

Exhibit A

PERFORMANCE EVALUATION TABLE

Performance Indicators	PERFORMANCE LEVEL											Calculations		
	0	1	2	3	4	5	6	7	8	9	10	Level	Wt.	Score
Recordable Incident Rate	>1.0	0.99 - .90	.89 - .80	.79 - .70	.69 - .60	.59 - .50	.49 - .40	.39 - .30	.29 - .20	.19 - .10	0		10%	
Total Incident Rate	>4.0	3.9 - 3.7	3.6 - 3.3	3.2 - 2.9	2.8 - 2.5	2.4 - 2.1	2.0 - 1.7	1.6 - 1.1	1.0 - 0.6	0.5 - 0.1	0		10%	
Near Miss Report	0 - 9%	10 - 19%	20 - 29%	30 - 39%	40 - 49%	50 - 59%	60 - 69%	70 - 79%	80 - 89%	90 - 99%	100%		10%	
Foremen Training	0 - 9%	10 - 19%	20 - 29%	30 - 39%	40 - 49%	50 - 59%	60 - 69%	70 - 79%	80 - 89%	90 - 99%	100%		15%	
Craft Training	0 - 9%	10 - 19%	20 - 29%	30 - 39%	40 - 49%	50 - 59%	60 - 69%	70 - 79%	80 - 89%	90 - 99%	100%		10%	
Job Pre-Plan	0 - 9%	10 - 19%	20 - 29%	30 - 39%	40 - 49%	50 - 59%	60 - 69%	70 - 79%	80 - 89%	90 - 99%	100%		10%	
JSA	0 - 9%	10 - 19%	20 - 29%	30 - 39%	40 - 49%	50 - 59%	60 - 69%	70 - 79%	80 - 89%	90 - 99%	100%		10%	
Inspections	0 - 9%	10 - 19%	20 - 29%	30 - 39%	40 - 49%	50 - 59%	60 - 69%	70 - 79%	80 - 89%	90 - 99%	100%		10%	
Surveys	0 - 9%	10 - 19%	20 - 29%	30 - 39%	40 - 49%	50 - 59%	60 - 69%	70 - 79%	80 - 89%	90 - 99%	100%		10%	
Lessons Learned	0 - 9%	10 - 19%	20 - 29%	30 - 39%	40 - 49%	50 - 59%	60 - 69%	70 - 79%	80 - 89%	90 - 99%	100%		5%	
Coop / TriPart Mtg	0 - 9%	10 - 19%	20 - 29%	30 - 39%	40 - 49%	50 - 59%	60 - 69%	70 - 79%	80 - 89%	90 - 99%	100%		5%	
Total Score													100%	