

SAFETY PROGRAM

TOOLES CONTRACTING GROUP



“We are proud of our safety policy and programs. The policy strongly states our commitment to people and their safety as a core value; the program focuses on cutting edge best practices based on empirical evidence from hundreds of occupational safety studies. These drive our exceptional quality, productivity, integrity, and morale and render us a force in our industry. Dedication to safety is mandated by the chairman of the company and we execute his commitment to safety every day. However, to achieve and maintain excellence and become a Benchmark company for occupational safety it takes a plan.”

from TCG's Safety Health and Environmental Mission Statement



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To: All Tooles Contracting Group (TCG) Employees

From: Damon Tooles

Dear Valued Employee:

Tooles Contracting Group recognizes that the safety and well-being of our employees is the organizations most important asset. Safety in the construction industry is a constant concern and priority, not only for our employees, but also for our customers and the general public.

Tooles has instituted continuous safety training programs, which are constantly reviewed, updated and improved. We focus on pre-task planning of work and have implemented various People Based Safety techniques. Tooles is confident that through these measures we can continue to reduce incidents, lower our EMR rate and lost time injuries and, most importantly, ensure our employees return home safely every day.

It is a proven fact that when employees are made aware of and are properly trained in appropriate safety procedures, it minimizes injuries and substantially reduces costs, but most importantly, the workers return home to their families. It is a moral imperative that we protect and ensure a safe work environment for all people that step foot on our job site.

As Tooles Contracting Group continues to be an integral force in the field of contracting, it is evident that our commitment to safety is essential to our continued success TCG Management in conjunction with its employees will continue to strive towards an injury free work environment.

The successful execution of Tooles Safety Policy is dependent on the commitment of both employees and management. As a valuable employee, please take the time to review and understand following program requirements. In addition, do not hesitate to ask questions or voice your opinions on how we can ensure a safe work environment at Tooles Contracting Group. Your cooperation and commitment is sincerely appreciated.

Damon Tooles
President

Statement of Philosophy

Tooles Contracting Group (TCG) is an industry leader executing construction activities with consistency and accuracy. Our philosophies of “Building Better through Basic Management” and “People-Based Safety” are the cornerstones of company operations.

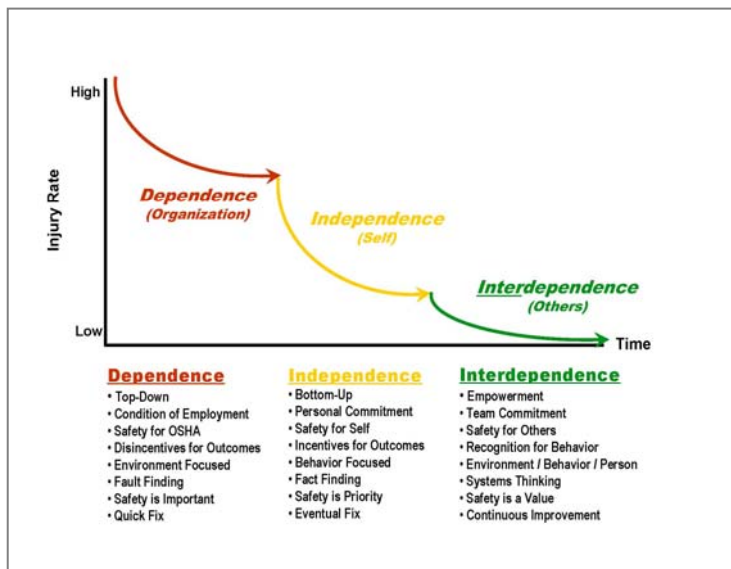
Safety, cost, scheduling, quality, and productivity are all integral parts of the construction process. The same “basic management” that brings a job in on time and under budget, brings it in safely.

Several reasons for having a robust safety program are:

- Protects the company’s most valuable asset, its employees.
- Eliminates unexpected interruptions in the work process, allowing for more accurate scheduling.
- Reduces insurance costs, thereby making TCG more competitive.
- Makes the work force feel more confident and secure, improving quality and productivity.
- Prevents incident-related disruptions that affect the schedule.
- Reduces unnecessary legal and financial burdens, improving the TCG image among potential and current customers.

Several reasons for having a People-Based Safety program are:

- Promotes an “actively caring” safety culture that encourages self-directed, “want to” engagement with regard to safety as opposed to other-directed, “have to” compliance with it.
- Focuses on leading indicators which promotes an optimistic attitude of striving for success as opposed to the failure-avoidance culture of a focus on trailing indicators.
- Promotes “fact finding” not “fault finding”. Most behaviors are the result of the system, not the cause of the problem.
- Helps first-line supervisors to be safety coaches by encouraging them to focus on positive safety activities such as pre-task planning, toolbox talks, and encouraging positive feedback.
- Celebrates safety achievements, but focuses on the process.
- Develops a culture of interdependence.



In an effort to maintain the highest quality safety program in the industry, this program is reviewed annually for areas of deficiency or, more frequently, to identify possibilities for proactive improvements. Additionally, in any areas of discrepancy between this policy and state, federal, or customer requirements, the most stringent will be enforced.

TCG's continued success is based on our ability to perform safely, on time and within budget.

Explanation of the Tooles Contracting Group (TCG) Safety Manual

TCG's Safety Manual does not resemble most construction companies' safety manuals, nor does it regurgitate the OSHA or other federal or state requirements. This document is intended to reflect the TCG safety philosophy and identify the TCG Leading Indicator and People-based safety programs unique in the construction industry.

Therefore, there are programs not included in this document but documented in procedures elsewhere and/or covered in Site Specific Safety Plans or Pre-task Plans. The following list represents a sampling of these topics. These topics and others not appearing in this manual are available by contacting the TCG Safety Director.

- Demolition and Due Care Removal
- Cadmium
- Lead
- HAZWOPER
- Respiratory Protection
- Asbestos
- Hearing Conservation
- Fleet Safety/DOT
- Emergency Preparedness/Crisis Management
- Project and General Public Protection
- Strategic Safety Health and Environmental Plan
- Integrated Management System
 - ISO 9001 Quality
 - ISO 14001 Environmental
 - Integrated Contingency Plan

TCG realizes our success is directly related to the success of our subcontractors. Therefore, our subcontractors are contractually required to implement all the Leading Indicator and People-based programs used by TCG. For ease of communicating these requirements, they are itemized in the "Subcontractor Requirements" section of this document.

TCG also realizes we cannot have a successful safety program through the management of people. The key to a successful safety program is when every employee "actively cares" about the safety and health of others as well as themselves. This is extremely difficult to achieve and can only be accomplished when five psychological "person states" are met.

1. **Self Efficacy – "I can do it"**. This state is reached when the person is knowledgeable enough to feel confident correcting someone else's at-risk behavior. This is achieved through training and education.
2. **Optimism – "I expect the best"**. You must expect the best of yourself and others in order to make the leap to "actively care".
3. **Personal Control – "I am in control"**. The more "outside control" (rules, regulations, micromanagement) people feel, the less "inside control" they feel. When people are "heard" by management, they feel more personal control and will be more likely to "actively care" about their safety and the safety of others.

4. **Self Esteem – “I care about myself”.** You must care about yourself before you can “actively care” about others.
5. **Belonging – “I care about my team”.** In order to “actively care” for others you must feel a sense of belongingness to the group. This can be nurtured on the job in many ways; site safety committees, listening to and addressing employee concerns/suggestions, and proper implementation of the TCG Safety Observation Program, to name a few.

The TCG Leading Indicator and People-based Safety Program is designed to promote these five “person states”. To that end, we do not use many traditional safety related terms such as accident, discipline, audit, or investigation. We choose to use more People-based terms seen in the chart here and throughout this document.

People Based Safety Language		
Use this...	In place of...	Because...
Incident	Accident	By definition an "accident" is something that happens by chance which implies that nothing can be done to prevent it. Most incidents are preventable.
Near hit	Near miss	The term "near hit" is actually a more accurate description of the event. "Near miss" tends to minimize the event while "near hit" gives it the importance it deserves. Additionally, events occur where someone, for example, is struck by an object but because there was no resulting injury it is referred to as a "near miss" when it actually was a direct hit! Using the term "near hit" will clear up that kind of confusion.
Analysis (fact finding)	Investigation (fault finding)	The term "investigation" is associated with police reports where information is gathered to make a case against someone; i.e. a fault finding mission. An analysis is an assessment of the events without placing blame; fact finding.
Contributing Factors	Root Cause	Root cause is a fallacy. Rarely is there ever one item that is the "end all" event that causes an injury. There is ALWAYS more than one reason, cause, event, choice, system error, etc., that contributes to an injury. Your job is to identify as many of them as possible in order to eliminate or fix everything that contributed to the injury/incident.
You're welcome. Or... You'd do the same for me.	No problem.	Saying "no problem" when someone thanks you for something minimizes their gratitude. It's better to say "you're welcome" or better yet "you'd do the same for me" which encourages reciprocity.
Accountability	Discipline	While in reality you may be disciplining someone, it is important that they understand their own culpability. The disciplinary action is forcing their accountability so we should try to discuss it that way.
Can I clarify anything?	Are there any questions?	"Are there any questions?" implies a lack of knowledge and no one wants to admit that they don't know something. Asking if you can clarify something is less intimidating and ironically usually results in more questions. Try this at a tool box talk.
Why did you choose to do it that way?	Why did you do that?	Everything we do is a choice so why not refer to it that way? "Why did you do that?" is accusatory and has a fault finding connotation whether it's meant to be or not. Asking someone why they chose to do something a certain way implies accountability without hitting them in the face with it. It's also a more fact finding question and will prompt more thoughtful responses. When used during an incident analysis this question will lead you down more diverse paths and may identify some unexpected contributing factors.
Feedback or Walk Through or Site Tour	Audit	Who likes to get audited? The first thought is an IRS audit. If we think about safety walk-throughs, safety observations, etc. as an opportunity to give and receive feedback we will open the lines of communication between workers and supervisors, between trades, and between contractors.

The goal at TCG is to provide to our employees the tools needed to promote the five “person states” above in order to encourage the discretionary behavior of actively caring. In this way we will meet our goal of becoming a Benchmark Company with regard to safety.

Supervisory Responsibilities

Project Managers: The project manager is the link between corporate management and the field employees. He/she is responsible for the implementation of the safety program at the operational level. The project manager may delegate some or all of these duties to other staff members. However, he/she is solely responsible to ensure the following items are carried out:

1. Communicate all corporate safety policies and procedures to the project staff and field supervision.
2. Plan the work in such a way as to minimize the possibility of injury, property damage, or other events that would have an adverse impact upon the company or its employees. Have emergency procedures prepared in advance and post numbers near the phones.
3. Assist in the establishment of jobsite safety rules and procedures, along with emergency procedures for the individual project.
4. Lead by example by initiating and following good work procedures and safe work practices.
5. Personally analyze all serious or potentially serious incidents, injuries, and near hits and communicate the results of the analysis to corporate management.
6. Educate all the employees they are responsible for in the safe and proper methods for doing the job. This should be accomplished with the assistance of the superintendents, general foremen, foremen, and safety personnel.
7. Inspect the entire job area they are responsible for looking for unsafe conditions and at-risk actions and institute corrective actions when deficiencies are found. At a minimum, this includes daily safety observations and completion of the Weekly Field Safety Checklist. This responsibility cannot be delegated to another person except for instances of excused absence such as vacation, leave of absence, etc.
8. Provide for first aid activities. Arrange for medical treatment and any necessary transportation for injured persons.
9. Maintain a liaison with local fire and rescue services, hospitals, utility companies, etc. in the event their services may be required.
10. Prepare and maintain all reports and records with regard to safety and insurance as required by TCG's safety program, the customer's requirements, and by federal, state and local law. This includes a list of hazardous materials on the site along with their MSDS's.
11. Implement Accountability Policy as necessary.

In the event the project manager is absent from the jobsite, the superintendent or other designated individual is responsible to perform the previously listed duties.

Superintendents: Superintendents must accept the responsibility for preventing incidents in their jurisdiction. They must understand the company's safety policies and procedures and set an example for their employees. Their safety responsibilities include the following:

1. Conduct job hazard analyses, complete pre-task plans, and explain the inherent hazards of the job to their employees.

2. Analyze all incidents that occur in areas under their control and provide the Project Manager with as much information as possible. "Incidents" include, but are not limited to, injuries, property damage, and near hits.
3. Inspect daily the areas under their control for safety insisting on good housekeeping and making sure tools and equipment are inspected daily and used properly.
4. Lead and participate in the pre-task planning and safety observation programs.
5. Attend and participate in all safety meetings as scheduled by management.
6. Familiarize themselves and their employees with the established jobsite emergency procedures and with the location and use of fire fighting, rescue, and first aid equipment.
7. Implement Accountability Policy as necessary.

In the event the project manager and superintendent are absent from the jobsite, the general foreman is responsible to perform the previously listed duties.

General Foremen and Foremen: General foremen and foremen are key people in the safety program because they are in constant contact with the employees. They establish the conditions under which their employees work and control the actions of those employees. Their safety responsibilities include the following:

1. Set a good example by following safe practices in all activities.
2. Provide continual supervision of employees to assure work is performed in accordance with instructions.
3. Lead and participate in the pre-task planning and safety observation programs.
4. See that good housekeeping is maintained at all times.
5. Enforce the use of personal protective equipment as prescribed by law, TCG safety policy, and best practices.
6. Make a written record of every employee injury regardless of severity and submit an Incident Analysis report to upper management within 24 hours.
7. Attend safety meetings as scheduled by management.
8. Instruct all employees about the hazards they may encounter and about company rules, equipment, and methods that will make their work safe.
9. Instruct all employees about the jobsite emergency procedures.
10. Review all applicable MSDS's with their employees and document it on the Weekly Toolbox Talk form.
11. Implement Accountability Policy as necessary.

Safety Supervisors: The safety supervisor reports to both the Field Safety Superintendent and the Safety Director as well as to the project manager on the jobsite. They are responsible to help establish the jobsite safety program and culture in order to bring the project to completion without incident. Through knowledge, training, and experience, the safety supervisor is an on-site safety resource for all management members and will assist in making sure the jobsite is in constant compliance with all safety requirements. They must be pro-active in helping management anticipate hazards and prepare ahead of time to eliminate or abate the hazards involved in the work being performed. The safety supervisor will also help management comply with federal, state, local, and customer safety requirements as well as help management make sure they are meeting or exceeding the requirements for their position listed in the safety manual. Their specific responsibilities will include:

1. Organizing and performing safety orientations for all direct-hire and subcontractor employees working under TCG's contract
2. Developing the pre-task plans with the help of on-site supervision
3. Training on-site and subcontractor supervision in the safety observation program, implementing the program on the jobsite, and communicating relevant information to all employees
4. Assist in and complete all Incident Analyses
5. Organize and lead weekly toolbox talks
6. Perform multiple informal daily site inspections and document the results of those inspections
7. Set up and maintain all required safety documentation including Material Safety Data Sheets.
8. Perform additional safety training that may be required on site such as aerial lift training, confined space training, roof access training, etc.
9. Attend and professionally represent TCG in all required customer safety meetings.
10. Verify all employees' drug testing and safety training status meets the customers' and TCG's requirements prior to their starting work
11. Maintain TCG project Safety Board with required information.
12. Maintain record keeping through TCG safety documentation binder system.

Office Managers: Due to extended recordkeeping requirements and large group orientations, TCG's Office Managers are integral members of the safety team on a jobsite. Depending on their jobsite location and the existence of a Safety Supervisor on their jobsite, the office manager's responsibilities will vary. Please reference ISO Job Instruction #13 – Orientation Procedure for specific instructions.

Estimators: An important factor in the success of our safety program is planning. Planning a job with health and safety in mind provides a clear set of directions for the protection of our employees and reduces the possibility of having to change operations mid-stream. This ultimately reduces job costs. In keeping with our goals of high quality and reasonable costs, it is the policy of TCG to consider safety as an integral part of the pre-job plan. In the bidding process, estimators must include costs for all items required by law, such as, but not limited to, hardhats, safety glasses, guardrails, fire extinguishers, and fall protection. These items are obvious by the nature of the work. The Safety Department will, at the request of the estimator, review bid documents and drawings for the purpose of determining the nature and extent of any special exposures or hazards. The Safety Director will provide estimators with as much information as possible regarding special safety equipment or operations that may be dictated by a particular project and/or hazard.

Leading Indicator Tools and Special Requirements

For many years, safety and management professionals have relied on “trailing indicator” data such as incident reports, EMR, DART-IR, LWCIR, and various other incident rates to determine trends and recognize situations that presented unsafe work atmospheres for their employees. The problem with this perspective is that it is “trailing” or after-the-fact.

At TCG, we believe a change of focus from trailing indicators to leading indicators provides our employees with a much safer work environment. By looking at leading indicators, potential incidents and near hits can't happen because they have already been eliminated.

Safety Observation Program:

The safety observation program is one of the three keys to the leading indicator approach to safety. It is a simple, one-card-a-day program that helps both workers and management on the jobsite prevent safety incidents and issues by specifically influencing six different jobsite dynamics:

1. An observation is a pro-active way to look at work being done on your jobsite while focusing on a specific area known to present hazards on typical construction projects.
2. An observation is a learning tool used to raise the general safety awareness level of supervision and all other workers on the jobsite.
3. The observation program promotes interaction and communication among all members of the construction team on each jobsite.
4. The observation program uses an electronic data base to track leading indicator data from each individual jobsite. Reports can be used to detect hazard trends and develop solutions that plan safety into future work.
5. An observation is a hands-on way to correct a potential hazardous situation without chastising or disciplining an employee or fellow worker.
6. *Most importantly*, an observation provides numerous opportunities to deliver positive reinforcement to employees and fellow workers and to collect useful feedback in return.

The suggested minimum requirement for safety observation cards on each jobsite is for every member of supervision for each company represented, from the foreman to the project manager, and all on-site safety committee members, to complete one card each day they are on the job. In addition to supervision, any other person on the job is welcome to participate in this program. It's important to note employees must understand why safety observations are important and be trained how to do effective observations. If quotas are imposed they will be met but may not have the desired effect.

For detailed information on how to complete an observation card and what to do with them upon completion, refer to Job Instruction #92 in the Quality Systems folder on the P:/ Drive or the SOC Instructions Poster in the Safety Observation folder on the P:/Drive. For subcontractor numbers and to generate an observation report for each jobsite, access <http://TCGdb/reports/Pages/Folder.aspx> and select folder “CA-TCG”.

Safety observation cards are available upon job start-up or upon request from the main office.

Pre-Task Planning: One of the most effective ways to complete a project without incident, on time, and under budget is to plan your work and work your plan. The pre-task plan (PTP) is a simple tool that helps TCG establish and maintain safe and efficient jobsites. Developing the PTP should be a group effort that includes input from the project manager, superintendent, safety supervisor, and trade workers.

A PTP must be completed for each major task to be accomplished according to the schedule for each project. The PTP must include the steps it takes to do the task, hazards anticipated in each step of the task, controls or abatements for each hazard associated with the task, and contingency plans in case something should go wrong while work is progressing. The PTP must also communicate emergency contact information specific to each jobsite.

PTP's must be reviewed on a daily basis before the specific task begins. The review should be initiated by the foreman, general foreman, or superintendent and must include all workers assigned to the specific task. Once the review is complete, each member of the crew must sign the PTP to indicate their attendance and understanding of the work to be done and safety requirements to be followed.

A number of template pre-task plans for work commonly done on TCG projects are available in the "pre-task" folder on the P:/drive. Before using these pre-written pre-task plans, you must complete the missing information and tailor them to your specific job conditions and requirements. They are templates only; NOT completed, ready-to-use documents.

Form SAFE018 (at the end of this section) will be used for all PTP's unless a customer specifically requires the use of their form.

Safety Committees: An on-site safety committee is an extremely effective tool for communicating safety awareness, developing a strong, positive safety culture, and maintaining a high level of site-wide commitment to safety on each project. The existence of a safety committee is recommended for all projects, but is left up to project or upper management's discretion based on size and duration.

The following are recommendations based on past successful site safety committees.

- Be chaired either by the TCG Project Manager or Safety Supervisor.
- Consist of at least one management representative from each subcontractor.
- Consist of at least one representative from each trade utilized on the project.
- Make participation open to all tradespersons on the project who are interested and volunteer to participate.
- Limit the number of members to approximately 10-15 people at a time (rotate membership as necessary to give other workers a chance to contribute).
- Develop a Mission Statement, Safety Slogan, and an organized way for good communication between the committee and all employees.
- Encourage members to complete one (1) Safety Observation Card per day.
- Encourage "cross training" – members from one trade present safety information to workers in a different trade – to promote more of a team atmosphere and a sense of belongingness.
- Operate with a budget (perhaps from Safety Incentive Program funds) to pay for banners, stickers, contests, etc. used to promote safety on the jobsite.

Special Requirements

Cut-off Grinders: Due to a high number of cut-off grinder related injuries TCG has specific training and use requirements for these tools. Angle grinders with cut off wheels can only be issued and used pending the following 3 requirements:

- Specific review of the task by the supervisor...AND
- Verification that it is the correct and safest tool for the task being performed...AND
- Verification that the employee using the tool
 - Has been trained to use it
 - Has all required PPE
 - And understands the potential hazards presented by his / her specific task.

For assistance in completing the above requirements TCG has several tools available for use by our employees and subcontractors:

- A Power Point training module located on the P: drive
- A "Cut-off Grinder Quiz" SAFE057
- A "Proper Cutting Tool for the Job Poster" SAFE058
- A "Cut-off Grinder Safety Poster" SAFE059

Jobsite Setup Requirements

Pre-Job Meeting: Prior to the start of any job, a pre-job work assignment meeting will be held. After the work assignments have been made, a statement explaining the Job-Site Safety Rules (SAFE001), Accountability Policy, and the safety observation program will be made. Any clarifications will be made at this time.

Pre-Job Kick-Off Meeting: Prior to the beginning of a job, a project kick-off meeting will be held. The project manager (PM) will introduce the project safety supervisor to the management team including as many of the following as possible; superintendents, general foremen, foremen, and stewards. Any subcontractor management members available for this meeting should attend as well. The PM will allow either the superintendent or safety supervisor to go over the Job-Site Safety Rules and the application procedure designed to support the rules (see Section 5 – Accountability Policy).

Site Specific Safety Plan: A site-specific safety plan is required for all large and/or long term projects. The template for this plan includes things such as:

- Site emergency protocols
- Project organization chart for all contractors including emergency contact information
- Site drug screening program information
- Site specific occupational care clinic or OCIP/CCIP information

A site-specific safety plan template is available from the Safety Department.

New Employee Orientation: Newly hired employees adjust to the safety culture of a company within the first three days. Therefore, it is important to send the right message from the very start. The orientation process should be well organized and focused on the safety message. All employees of TCG including the site management team, and our subcontractors are required to attend a TCG site orientation before performing any work on the jobsite. Refer to the “Safety Orientation” section of the Document Management Checklist (SAFE045) for the minimum orientation topic requirements. Reference the TCG ISO Job Instruction #13 – Orientation Procedure for additional information.

Documentation of each orientation consists of a sign-up sheet kept in the site binders and one copy of each orientation document given to the employee, kept in the site binders, and sent to the main office with payroll. Contact the TCG main office for pre-assembled orientation packets.

Contact the Yard Manager, Safety Director or Field Safety Superintendent for safety orientation stickers and optional medical information stickers for employees’ hardhats.

Safety Training: Safety awareness training is paramount to developing a workforce with the knowledge and capability to complete a project free of incidents hazardous to the health and welfare of our employees. Knowledge is power, and the application of this knowledge will greatly assist TCG management in bringing in a project on time, under budget, and incident / injury free.

Many of our customers spell out contractually-required training as a pre-requisite for working on their property. Examples of this could be MUST modules, OSHA 10 or 30-hour classes, Marathon’s Process Safety training, etc. Make sure you know what training your customer

requires and verify this specific training has been met by all employees and management prior to their arriving on the jobsite. A current list of TCG employees' OSHA training is available in the Safety folder on the P:/ drive.

Substance Abuse Testing: TCG companies subscribe to a drug free philosophy and participate in several substance abuse policies including but not limited to: MUST (Management and Unions Serving Together), MOST (Mobilization Optimization Stabilization and Training), and GM2Work. All employees of TCG and our subcontractors are subject to substance abuse testing from laborers and office clerks to the owner and CEO. The program under which they fall will depend on their location and position. Substance abuse screening includes: new hire, post incident, random, annual, for cause, and return to work.

Pre-Task Planning: When beginning a new project, pre-task planning is extremely important to starting quickly, safely, and efficiently. A list of anticipated pre-task plans that will be needed for the project must be included with the site safety plan. Please refer to "Pre-task Planning" in Section 2 of this manual for further explanation of the Pre-task plan requirements.

Toolbox Talks: All craft employees and on-site management personnel are required to attend regular "Toolbox Safety Meetings" held a minimum of once per week. This meeting will consist of:

1. A discussion of at least one formal safety topic
2. Site-specific safety information
3. MSDS review as necessary
4. Suggestions/concerns brought up by meeting attendees
5. It may also include updates from the site safety committee

Use form SAFE005 to document completion of this meeting. Subject material for safety topics can be found in the "Safety" folder on the P: drive.

Safety Committees: Depending on the manpower and/or duration of the job, an on-site safety committee may or may not be required. Please refer to "Safety Committees" in Section 2 of this manual for further explanation of the Safety Committee requirements.

Safety Incentive Program: The safety rewards criterion is designed to be "consistently inconsistent". This system gives project managers the latitude to reward safety performance immediately with non-cash awards.

Projects of various sizes will be assigned a pool of money, to be charged to the "sundry portion" of the project budget, for safety rewards. Project managers will be given the discretion to decide when, the worth, and to whom these rewards will be given. The program will have the following initial guidelines:

1. Budget money must be spent. Unused budget monies assigned to a project will not become project profit.
2. Rewards must be given in a non-cash format. Gift cards and gift certificates with a specific dollar value are acceptable.
3. Rewards cannot exceed \$100.00 (net value) per individual / per incident.
4. Rewards cannot be given to project managers or safety personnel. Rewards are specifically for tradespeople and field supervisors.

5. Rewards can be given to subcontractors and subcontract field supervisors (foremen/superintendents).
6. Rewards for good performance should be given immediately, if possible, or within 24-hours of the recognized action.

Projects will be assigned monies based on the following:

- Project Budget \$0 to \$500K \$ left up to discretion of the project manger
- Project Budget \$500K to \$1M \$1,000 bonus pool
- Project Budget \$1M to \$3M \$1,500 bonus pool
- Project Budget \$3M+ \$2,000 bonus pool or as determined by management

Clinic Setup and Protocols: One of the most important steps when beginning a project at a new job location is locating an acceptable medical facility and establishing a working relationship with their office and medical staff members. Completing this step will ensure compliance with federal, state, and local requirements and will aide in smooth and complete injury care and substance abuse testing for the duration of the project.

Clinic Setup: The TCG Insurance carrier has pre-approved clinics across the country. Contact the safety department for a list of pre-approved clinics in the area of your project.

Some of the items to consider when choosing a clinic are:

1. The clinic should typically be no further than a 15-minute drive from the jobsite.
2. The clinic hours of operation should coincide with the hours the jobsite will be working.
3. The clinic should be an occupation illness / injury facility that is familiar with OSHA record keeping and workers compensation requirements.
4. It is helpful if the clinic is associated with the hospital in the area as this can aide in after-hours care and follow-up care in the case of a serious injury.
5. The clinic can perform pre-employment, random, for-cause, and post-incident drug screens except when expressly prohibited by the presiding union bargaining agreement.

Clinic Protocol:

Clinic Protocols required by TCG are available on the TCG Occupational Care Clinic Protocols form (SAFE060). This form includes all TCG protocols and contact information and can be given directly to the clinic at the time of account set-up.

Respirator Protocol:

1. A medical questionnaire should be completed prior to any testing
2. At the doctor's determination, a pulmonary function test should be performed
3. Fit-testing and training should be done using TCG-provided respirators

TCG Injury Protocol:

1. An injured person must NEVER drive him/herself to a medical facility. Transporting of an injured person must be by ambulance or by TCG Management or Safety Supervision.
2. Each jobsite must have at least one (1) First Aid/CPR/AED trained management representative on site for each shift while work is being performed.
3. First-aid kits, adequate for the number of employees in the work area, must be readily available. Additionally, TCG Medical Emergency / Trauma bags are available upon request from the safety department.
4. The person administering First Aid MUST stay with the injured person at all times until they are in the care of medical professionals.

Recordkeeping: TCG has developed a nine-binder system to help capture and organize all required and pertinent safety documentation for each jobsite. Refer to the Safety Document Management Checklist (SAFE045) in the "Quality Systems" folder on the P:/drive for a complete list of the nine required binders and their contents. Contact the TCG receptionist for help with creating binder cover-sheets and the tab listings for the nine-binder set.

Main Office Safety

TCG is dedicated to providing a safe work environment not only for our employees working on jobsites around the world but also for those in the Auburn Hills office and in the shop. This section is not intended to repeat the safety requirements of the whole policy that are applicable to work being done in the shop and offices, but rather to point out some differences or additional requirements specific to these areas.

Visitor Access:

All visitors must sign in at the front receptionist desk and be escorted into the office or shop from there.

All visitors must be aware of the emergency preparedness information listed below.

All visitors must follow the same safety requirements as TCG personnel according to their location in the shop. Safety glasses are available in the racks by the entry doorways and the break room or by contacting the Yard Manager.

Emergency Preparedness:

All office and shop personnel are required to know what to do and where to go in the event of an emergency. Refer to the ISO9001 Procedure Manual PM17 for take shelter and evacuation procedures. In an emergency, the safety of each visitor is the responsibility of the TCG employee they are visiting. Make sure each visitor gets to the proper location and their name is checked off the list to ensure they are accounted for.

Office Ergonomics / Training:

Auburn Hills office personnel will receive office ergonomics and other applicable safety training.

Shop personnel including but not limited to mechanics, fab shop and truck drivers, will receive training as dictated in the Safety Training Matrix.

Personal protective equipment:

TCG requires safety glasses for all persons performing work in the shop as well as outside of the building. Two additional areas are designated as requiring safety glasses for all persons. These areas are the mechanics' work areas and the fabrication shop aisle. Signs are posted on the outside of all entry doors into the shop as well as in strategically placed locations around the shop.

Additional PPE may be required for different work activities in the shop such as welding, grinding, painting, etc. Reference the appropriate section of this manual or contact the Safety Director or Yard Manager for help in determining and obtaining the proper PPE.

Chemical Handling and Storage:

All chemical products in the shop must be in their proper container with legible labels and must be stored properly. A material safety data sheet must also be available for each chemical product in the shop. Contact the Yard Manager for MSDS's for all shop-supplied chemical products.

All new (un-opened) chemical products should be returned to the supplier / manufacturer for re-imbursement instead of being sent to the shop. If partial containers of chemicals are dropped off at the shop (including after-hours), the person delivering the chemicals is responsible to include an MSDS for the product(s) in question and place it in the mailbox outside the Yard Manager's office.

The shop has three controlled chemical waste drums used to manage the disposal of used oil, paint waste, and fuel/fuel oil. These collection areas are well marked and are locked. No smoking or open flame is allowed within 25 feet of these collection areas. Contact the Yard Manager in order to add any of the appropriate waste products to the collection drums.

Outside Contractors Safety:

All outside contractor employees performing work at the Auburn Hills facility must follow the visitor access requirements listed at the beginning of this section. Emergency preparedness information must be communicated and understood by these workers before they are given access to the facility.

All outside contractor employees must contact the Yard Manager upon arrival in order to review their task, assess the potential safety hazard exposures, and receive any necessary training pertaining to the work they will be doing. This review will be documented and kept in a binder in the Yard Manager's office.

All outside contractor employees must wear, at minimum, long pants, a shirt with 4 inch minimum sleeves and appropriate work footwear.

Pre-Task Planning:

Unusual and high-hazard tasks performed at the Auburn Hills facility will require a Pre-Task Plan (SAFE018). This applies to TCG employees as well as contractors.

Field Offices:

To ensure the health of our employees, all field offices are smoke-free facilities. Close-toed shoes are required in field offices. Office personnel working in the field may wear tennis shoes, loafers, or other non-open-toed shoes

Accountability Program

Purpose: TCG is committed to establishing and maintaining safe work sites by implementing various people based programs that inform and involve our employees at every level. Our approach emphasizes training, encouragement and empowerment of our employees instead of regulations and immediate discipline. This emphasis results in active participation and ownership in the program and promotes safety leadership and accountability on each jobsite instead of rote compliance.

In every safety program, a system of accountability must be established in order to address situations that fall short of the company's requirements. The purpose of the accountability policy is to provide consistent management of a safety shortcoming ranging from a failure of the system to an individual employee's calculated choice /action.

Documentation of the accountability program is essential to show the consistency with which safety shortcomings are managed as well as prove the effectiveness of the program.

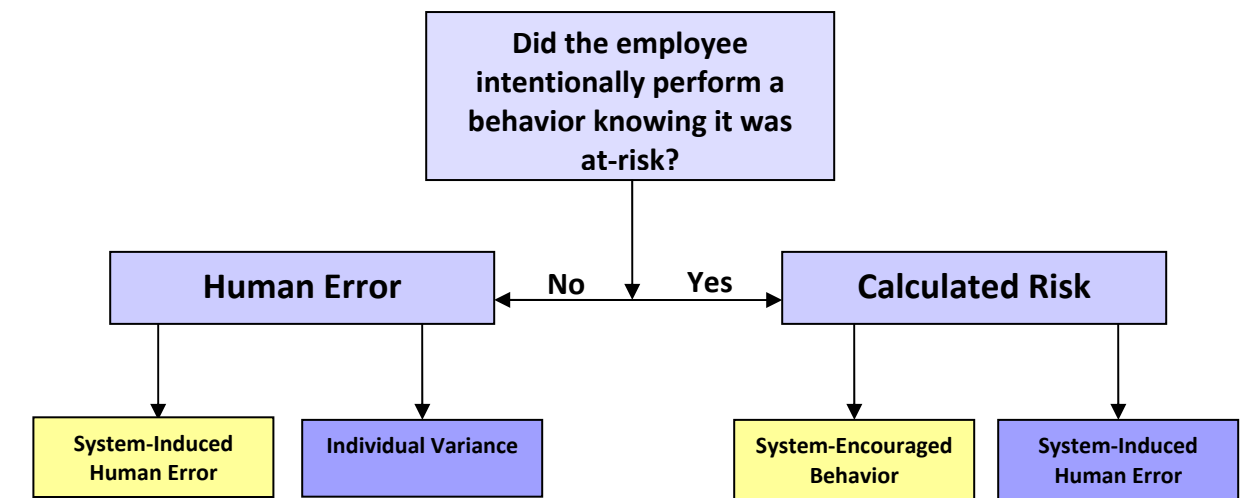
Implementation: According to the Jobsite Safety Rules (SAFE001), two types of safety shortcomings are identified based on the severity of the exposure to the employee. A "Class A" situation involves imminent danger to the life and health of the employee and therefore carries with it a very high level of accountability. The "Class B" situation involves shortcomings that could expose the employee to injury and are a violation of the minimum OSHA requirements, but carry a lower level of accountability.

The requirements and application of the accountability policy will be communicated to all employees in the safety orientation setting.

Application:

Worker Accountability:

Care should be taken when reprimanding employees to ensure a reprimand is appropriate. Errors or behaviors encouraged by "the system" generally do not justify a reprimand, but are considered a management failure. Use the following chart to help determine when consequences are required.



System-Induced Human Error: This is when an employee follows the direction in a pre-task plan, procedure, or uses a tool they have been directed to use that results in some type of an incident. For example, TCG had for many years supplied workers with Metabo cut-off grinders with wafer-type blades and a half guard instead of the Type 1 cut off wheel guard required by the manufacturer. An employee injured using this tool set-up at the company's directions would not be disciplined. Instead, a system change is required to correct the situation.

Individual Variance: An example of this scenario would be a worker using the wrong tool for the job due to lack of training or previous experience where a supervisor incorrectly directed the use of that tool for that work. This scenario does not result in disciplinary action. Additional work-related or cultural training is recommended to correct the situation.

System-Encouraged Behavior: This situation includes a worker who knows a hazard exists but follows supervision's direction anyway resulting in exposure to some type of incident. For example, many workers followed TCG's requirement to use the Ergo style cut off grinder knowing, or suspecting it produced too much torque for use with the wafer-type cut off blades. This would not result in disciplinary action of the employee. Instead, a system change is required to correct the situation.

Willful Negligence / Act of Sabotage: This situation would include an employee knowingly and willfully violating safety requirements or supervision's proper direction. In addition, it could include a supervisor directing an employee to perform work in an unsafe manner. Many times this type of action immediately exposes the worker to various minor hazards as well as imminent danger. This scenario requires disciplinary action of the employee and/or supervisor. Contact the Safety Department for help in resolving situations of this nature.

Management Accountability:

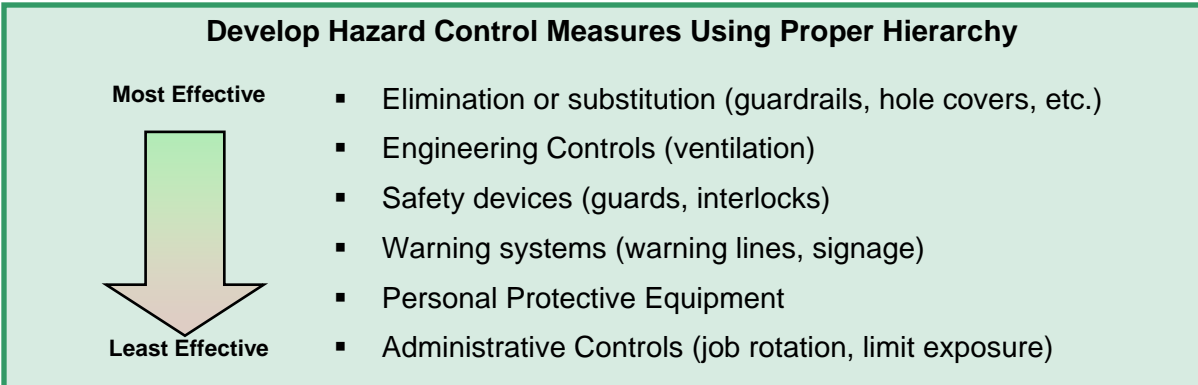
Field supervisors are responsible for implementing and ensuring compliance with the TCG safety program. As such, they are not immune to being held accountable. This is accomplished through normal chain-of-command.

Subcontractors at Every Tier:

At a minimum, all subcontractors, regardless of their tier level, will follow the same Job-site Safety Rules as well as all worker and management accountability requirements detailed in this section unless their company's accountability program is more stringent.

Personal Protective Equipment

It is the intent of TCG to use the Hierarchy of Hazard Control, implementing the most effective methods first (see diagram). Personal protective equipment (PPE) is one of the last lines of defense against hazards responsible for injury or illness. It is better to engineer or plan the work in a way that eliminates potential hazards rather than rely on PPE. However, when work activities require the use of PPE, it will be provided at no cost to our employees.



Employees will be trained in the proper use, inspection and storage of PPE. PPE must be maintained in a sanitary and reliable condition. Damaged equipment will be removed from service.

All employees are required to work fully dressed. Specifically, long pants, shirts with three inch sleeves, and sturdy leather work-type shoes or boots are the minimum requirements. Some work activities or owners may require other minimum PPE.

A TCG hard hat is provided to every employee and is required to be worn in all work areas.

ANSI Z.87 safety glasses with hard side shields are required at all times. Prescription glasses must meet the same requirement or “over the glasses” (OTG’s or OTS’s) safety glasses must be worn.

Steel toe or “safety shoes” are not required for most work activities performed by TCG. However, their use is strongly encouraged. Some activities, such as running a jackhammer, do require the use of safety shoes. Some customer work locations require the use of safety shoes while on their property. The Safety Department will assist project management in determining the job needs and what type of protection is required.

In some cases, such as those involving chemical exposure, very complex special equipment may be required for personal protection. The Safety Department will aid project management in determining exposures and what PPE is required for those exposures.

TCG has a Glove Program. If the Pre-Task Plan identifies the need for gloves, the proper type and size will be provided by the employer.

General information on PPE is included in the “Home In One Piece” orientation DVD. If additional training is required per work or site conditions, training can be addressed in a specific training setting or in the general toolbox talk meeting. All training will be documented.

Incident Analysis / Reporting

The goal of TCG's safety program is to prevent all incidents and injuries from happening. However, when an incident occurs, learning from mistakes and preventing them from happening again is the best possible outcome. No matter how insignificant the incident might seem, an injury, first aid, near hit, or property damage are still adverse situations that can have far-reaching effects on our employees, processes, and customer relationships.

Incident analysis is an exercise in THINKING about how the incident occurred and SEEING all the potential contributing causes, then ACTING and COACHING to ensure it cannot happen again. It is not a blame placing exercise; every effort should be made to identify causes outside the control of those involved. Use the Incident Analysis form (SAFE003) to find and document all the facts of what happened and why it happened instead of looking to place blame on an individual. The goal is to discover and develop different and/or better ways to perform the same work without repeating mistakes.

The reporting of near hit incidents is an important tool to determine the best way to perform our work without injuring our employees or others. A near hit is a situation where something happens that could have easily injured someone or caused property damage, but did not. This type of situation gives us a clear indication our process, procedure, work conditions, or acts need to be re-evaluated and changed. **TCG does not administer any disciplinary action for someone reporting a near hit situation; to do so discourages reporting of near hits and sabotages the use of this important leading indicator tool.**

General Completion Instructions

The first step is to notify the Safety Director or Field Safety Superintendent of the incident. Their experience can help you through the Incident Analysis process.

The Incident Analysis form should be completed by a member of TCG management in lieu of the person or persons immediately involved in the incident. It is also recommended to include the union steward or member of the Site Safety Committee or other tradesperson in the incident analysis process. This allows for the gathering of as much objective information as possible in order to understand and process the incident as a whole instead of concentrating on only one perspective. It also creates trust between management and workers which promotes and reinforces our people based culture.

Include as many second and third party statements as needed to get a complete picture of the incident. If statements are limited to the immediate person(s) involved, much of the pre-planning, pre and post incident contributing factors, and other relevant information could be missed.

Be as descriptive and detailed as possible when completing the Incident Information section. Include photos, sketches, diagrams and/or measurements of the incident and any other information that could be helpful in understanding what happened and why.

Most incidents are a combination of causes or sequence of events, not one single causal factor. The theory that incidents can be attributed to a single "root cause" is a myth. Therefore, we need to list as many contributing factors as can be identified. Knowing all of the contributing

factors will help to determine if the incident resulted from a failure in the system, a system induced behavior, human error, or a deliberate action.

The “Lessons Learned” section contains the most valuable information in the Incident Analysis process. The quality of the “Lessons Learned” depends on the completeness of the analysis. Be sure to list everything done immediately before the incident and what was done afterward to control the area and limit any further damage, injury, or other activity that could make the incident worse. Once your analysis is nearing completion, you should be fully knowledgeable about what caused the incident. Based on this information, we should be able to detail some long-term / irreversible corrective actions to be taken on the incident site and communicated company-wide that will prevent a similar incident from reoccurring.

When completing the Injury & Medical Information section electronically, use the pull-down menus for “Part of Body”, “Type of Injury”, and “Injury Cause” so that the record keeping information is standard throughout TCG. If you are completing the Incident Analysis form manually, refer to the bottom of the “Subcontractor Monthly Hours/Incident Report (SAFE036) for the standardized injury reporting lists.

All Incident Analysis reports are classified as “preliminary” until all the required Analysis Team members have confirmed their knowledge and participation and have signed and dated the report.

The completed report must be sent to the Safety Director and the Executive Administrative Assistant. Their contact information is located at the top of the first page of the Incident Analysis report (SAFE003).

Incident Analysis Kits

Incident Analysis “tool” kits are available from the TCG Safety Department. They contain everything needed to perform and document a complete incident analysis.

Analysis Guidelines

Securing the Incident Area: Once an incident occurs, direction should be given as soon as possible to control the area. This can be done either by using physical barriers such as “Danger” or “Caution” tape, barricades or by placing personnel in the area(s) to ensure nothing is moved or disturbed. Controlling the incident area is important for three reasons:

1. *Safety of the person(s) involved, first responders, and anyone else in the immediate area:* All equipment and other processes that could present further or continued risk must be controlled as soon as possible.
2. *Arranging help for the injured person(s):* Many times when an incident occurs, the area fills up quickly with bystanders wanting to see what happened and what will happen next. By marking off a control area, you will ensure enough room for first aid or emergency responders to help the injured person(s). Keeping the injured person(s) in this area will also help in preventing the spread of blood and other health related issues that could put the injured or others at risk.
3. *Preventing changes to the incident area:* In order to perform a thorough incident analysis, the conditions where the incident occurred must be undisturbed as much as possible. If the area is not controlled, important information could be moved, removed, or even destroyed making it almost impossible to figure out what actually

happened and why. All the information at an incident scene is important in ultimately finding a way to prevent the incident from reoccurring.

Supportive Documentation: Pictures, graphs, sketches, diagrams, and charts are all extremely useful in explaining the order of events and results of an incident. When making any graphs, sketches, or diagrams, be sure to include measurements so that the relationships between people and objects in the incident area can be easily understood. When taking photographs, take as many as you can from as many directions and angles as possible. Start with long shots to establish context and then move to medium distance shots followed by close-ups for detailed information on key elements.

First, Second & Third Party Statements: Statements given by someone involved in or someone observing the incident is invaluable in piecing together exactly what happened. When done correctly, these statements usually point out direct and often indirect causes of the incident.

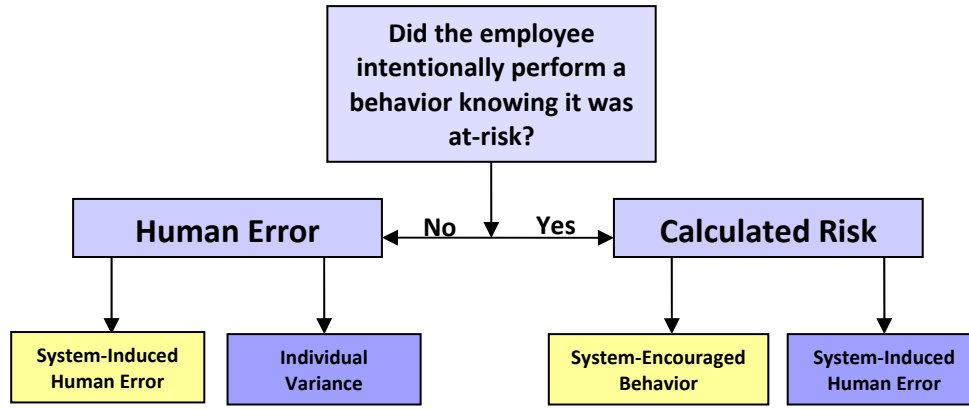
Who should make a statement? Anyone directly aware of the incident should give a statement specific to his or her knowledge or experience in the actual incident. These persons could range from a supervisor who directed the work to a co-worker to a passerby who noticed a particular sound just before the incident happened. All of their information is potentially important and should be documented for further analysis. Additionally, events following the incident are also important and can be used to help us better prepare for an emergency in the future. No piece of information is insignificant.

The environment where statements are taken is very important as well. Usually, if people are talking to each other about the incident or sitting in a group setting to complete their statement their recollections will all become the same. They may doubt what they actually saw or heard because none of the other people in the group noticed the same thing when, in fact, they noticed something significant that was missed or discounted by everyone else. The best way to take statements is to separate the first, second, and third party people enough so that they can think and write clearly what they know, saw, or heard without the influence of hearsay or someone else's perspective.

How you ask questions when taking statements is very important too. Ask open-ended questions that will illicit a person's thoughts, descriptions of what they remember, and reasons for choosing to do what they did. These questions go a long way in identifying what type of failure caused the incident.

System Failure vs Human Behavior:

The ultimate goal of any incident analysis is to find out why it happened so proper corrective actions can be taken to correct the situation and prevent it from happening again. In analyzing the contributing causes of the incident, we need to determine if there are any areas where the system in place caused or encouraged the condition or behavior that resulted in the incident. The following chart shows the thought process used to make such determinations.



System-Induced Human Error: This type of scenario would be when an employee follows the direction in a pre-task plan, procedure, or uses a tool they have been directed to use that results in some type of an incident. For example, TCG had for many years supplied workers with Metabo cut-off grinders with wafer-type blades and a half guard instead of the Type 1 cut off wheel guard required by the manufacturer. This scenario does not result in disciplinary action of the employee. Instead, a system change is required to correct the situation.

Individual Variance: An example of this scenario would be a worker using the wrong tool for the job due to lack of training or previous experience where a supervisor had incorrectly directed the use of that tool for that work. This scenario does not result in disciplinary action of the employee. Additional work-related or cultural training is recommended to correct the situation.

System-Encouraged Behavior: This situation includes a worker who knows a hazard exists but follows supervision's direction anyway resulting in exposure to some type of incident. For example, many workers followed TCG's requirement to use the Ergo style cut off grinder knowing or thinking it produced too much torque for use with the wafer-type cut off blades. This scenario does not result in disciplinary action of the employee. Instead, a system change is required to correct the situation.

Willful Negligence / Act of Sabotage: This situation would include an employee knowingly and willfully violating safety requirements or supervision's direction. In addition, it could include a supervisor directing an employee to perform work in an unsafe manner. Many times this type of action immediately exposes the worker to various minor hazards as well as imminent danger. This scenario requires disciplinary action of the employee and/or supervision. Contact the Safety Department for help in resolving situations of this nature.

Lessons Learned

Once the incident analysis is complete and all the information relevant to the incident is documented, the next step is to make available to everyone lessons learned from the incident. This important step raises everyone's awareness and helps prevent the same or similar incidents from happening on other jobsites.

The Weekly Safety Teleconference is used to communicate the necessary information between jobsites. In some cases the Safety Department will compile the information from the Incident Analysis form into a brief summary format that will be communicated as a Safety Bulletin via email, placed in a folder on the Public Drive, and/or posted on the front page of the Toolcrib intranet site. Each jobsite can then communicate the information to their workforce and gather feedback by way of toolbox talks or postings on the Safety Board.

Subcontractor Requirements

TCG recognizes that as the general or prime contractor, we rely on other companies to help us achieve a successful project. If our subcontractor companies are successful, TCG is successful. If one subcontractor fails, TCG fails. Therefore, it is very important we provide our partnering subcontractors the tools needed to ensure success in the realm of safety performance. This section outlines the participation we expect from our subcontractors on each project to ensure that as a team, we meet and exceed our customer's safety requirements and expectations.

Typically, each company has its own safety policy and practices. Our goal is not to dictate the specifics of another company's program, but to complement it with proven safety practices. In accordance with the Subcontract Agreement (SUB003) section 23, in cases where TCG's policy is more stringent, it is to be followed; in cases where the subcontractor's policy is more stringent, that policy will be followed.

Pre-Mobilization Requirements: In an effort to streamline startup requirements, TCG has put together a list of ten documentation items needed prior to a subcontractor or tier subcontractor arriving on the jobsite. We ask each company review and complete the Subcontractor Safety Commitment document (SAFE043) and deliver each item requested to the TCG site management team.

TCG has a number of programs and activities detailed throughout our Corporate Safety Policy that help us complete each project safely and efficiently. We strongly encourage our subcontractors and their tier subcontractors to participate with us in these programs:

Safety Orientations: All employees under the TCG contract "umbrella" are required to attend a TCG site orientation before performing any work on the jobsite.

Pre-Task Planning: A PTP must be completed for each major task to be accomplished according to the schedule for each project. The PTP must include the steps it takes to do the task, hazards anticipated in each step of the task, controls or abatements for each hazard associated with the task, and contingency plans in case something should go wrong while work is progressing. The PTP must also communicate emergency contact information specific to each jobsite.

PTP's must be reviewed on a daily basis before that specific task begins. The review should be initiated by the foreman, general foreman, or superintendent and must include all workers assigned to the specific task. Once the review is complete, each member of the crew must sign the PTP to indicate their attendance and understanding of the work to be done and safety requirements to be followed.

On-Site Safety Committee: An on-site safety committee is an extremely effective tool for communicating safety awareness, developing a strong, positive safety culture, and maintaining a high level of site-wide commitment to safety on each project. It is highly recommended a safety committee be established on all projects scheduled to last 60 days or more or hiring 50 or more persons including supervision and subcontractors. The committee should consist of at least one person from each trade and each subcontractor. Every project is different and safety committees will reflect that.

Safety Observation Cards: Every member of supervision for each company represented, from the foreman to the project manager and all on-site safety committee members, are strongly encouraged to complete one card each day they are on the job. In addition to supervision, any other person on the job is welcome to participate in this program.

Toolbox Talks: All craft employees and on-site management personnel are required to attend regular "Toolbox Safety Meetings" held a minimum of once per week.

Lockout / Tagout: Subcontractors must issue locks to their employees that are **standard by color** and have only one (1) key available per lock. Subcontractors can use any color except for yellow or orange or a color already in use by another subcontractor. Additional information can be found in the Energy Control section of this manual.

Cut-off grinders: Due to a high number of cut-off grinder related injuries TCG has specific training and use requirements. These can be found in the Leading Indicator Tools and Special Requirements section of this manual.

Fall Protection: Fall protection is required at and above six feet on all TCG projects for all work activities. Safety monitoring systems and controlled access zones are not permitted. Training is required in proper inspection, use, and storage. Note that some customers may have more stringent requirements.

Personal Protective Equipment (PPE): Hard hats and safety glasses with hard side shields that meet the current ANSI standards are required. Additionally, if gloves are indicated to be necessary on the Pre Task Plan, the proper size and type will be provided by the employer. Additional information can be found in the PPE section of this manual.

Hazard Communication: Subcontractors must submit a chemical list and MSDS's for all chemicals they will use on site prior to the chemical arriving. MSDS's can be no older than 5 years (3 years for GM projects) unless it can be documented as the latest MSDS revision by the manufacturer.

Accountability Program: At a minimum, all subcontractors, regardless of their tier level, will follow the same job-site safety rules as well as all worker and management accountability requirements as outlined in the Accountability Program section of this manual.

In order to gain more information about the programs listed above, please refer to each specific section of this Corporate Safety Policy, contact your TCG site management team, or contact any member of TCG's Safety Department.

Hazard Communication

ToolesContracting Group is very much aware of the potential hazards presented by chemical substances on the jobsite. While most of the products we use are not considered highly hazardous, many of our customers, subcontractors, and various other companies working around us do use chemicals that could cause serious injury and illness to our employees. This Hazard Communication Policy is intended to outline the requirements for communicating information about the chemicals present on the jobsite, training employees in the proper handling, use, and storage of the chemicals, and maintaining the required documentation on each jobsite.

General Information:

At the start of every project, management will use the Letter to Customer (ENV005) to request chemical information and MSDS's from the customer or controlling entity of the project. Management will also request chemical and MSDS information from all subcontractors no matter their tier level. These MSDS's must not be any older than 5 years old unless it can be documented as the latest MSDS revision by the manufacturer. Management will then make that information as well as TCG's chemical and MSDS information available to our employees and subcontractors.

A copy of this program is to be maintained on each job-site at all times, along with a list of any hazardous substances and corresponding MSDS's being used on the specific job. All MSDS's will be indexed and kept on file in Safety Binder #9 except on small "flusher" projects. MSDS's for these projects will be available online or via fax from the office.

All employees are permitted to review the Hazard Communication program and any MSDS relative to or associated with their work or work area. All requests for a copy of the Hazard Communication program will be honored.

Training:

During the required TCG Safety Orientation, all direct and subcontractor employees will be informed of the customer's chemical and environmental program as well as TCG's Environmental Best Management Practices (ENV008). Proper labeling, handling, storage, disposal, and spill procedures will be specifically addressed during the orientation.

In addition to the Safety Orientation, ongoing chemical / MSDS training will take place as needed in the weekly Toolbox Talk or Pre-Task Plans as new chemicals are introduced to the jobsite or as job assignments change that would introduce employees to existing chemicals or hazardous substances.

Labeling: All chemical substances used by TCG on the jobsite must have proper legible labels. The information on the label is provided by the manufacturer and may contain symbols or pictures as well as other information necessary to protect our employees from any known hazards associated with the chemical. If an employee encounters any chemical substance missing a label or defaced to the extent the label cannot be read, they must notify their supervisor so this can be corrected as soon as possible. Also, care must be taken to ensure that non-English speaking employees understand the hazards associated with a given product. Therefore, when applicable, this Hazard Communication program and all other pertinent chemical information will be provided in the appropriate language(s).

Material Safety Data Sheets: MSDS's are created by the manufacturer of the chemical and are relied upon by our company as having pertinent and accurate information. These data sheets contain all the information needed about a particular substance. Most MSDS's are long and complicated to read and understand. Therefore, focus on the following areas for the quickest understanding of the chemical being handled:

1. Know the name of the chemical you are handling;
2. Know the hazardous ingredients and their associated hazards;
3. Review the information contained on the manufacturer's label so as to understand the effects of the chemical;
4. Most importantly, review the section on PPE and how to use the required equipment;
5. Know the first aid procedures associated with the chemical in case an over-exposure situation arises;
6. Include a review of MSDS's and how to handle any spills, disposal, or contamination situations for each chemical you are using during pre-task reviews or weekly toolbox talk meetings.

TCG has chosen to use an online company to manage our MSDS library. A direct link to our "e-binder" is available on the Toolcrib intranet site. An instruction sheet is also available in the Safety folder on the P:/drive.

Confined Space / Hazardous Locations

Confined spaces and hazardous locations can be very dangerous work environments if precautions are not taken prior to entry. Although most of TCG's work does not involve entry into spaces presenting major hazards, the precautions detailed in this section must always be addressed in order to ensure the safety of our employees and subcontractors. Typically, the consequences of improper confined space entry are serious illness, injury, or death instead of the usual minor injury. Because of this, it is imperative that we plan our work and work our plan when facing a confined space situation.

Definition:

A **confined space** is any area that:

1. Has limited access or egress;
2. Is large enough to enter and perform work; and
3. Is not designed for continuous human occupancy.

Confined spaces include, but are not limited to: storage tanks, process vessels, manholes, sewers, boilers, or tunnels.

A **permit required confined space** is a space that meets the definition of a confined space and contains or has the potential to contain a hazard. Hazards include but are not limited to: engulfment, oxygen deficient or enriched atmosphere, toxic or flammable atmosphere, moving parts, rescue hampered by the size of the opening or the configuration of the inside of the confined space, or other hazards. In some cases our customer may have a more stringent definition of a permit required confined space. The most stringent requirement will always be followed.

Hazardous Locations differ from confined spaces in that they are not generally enclosed, however many of the same problems/exposures exist. A location may be deemed hazardous because of high chemical concentrations or dangerous processes. Protection of employees working in hazardous locations should be consistent with the requirements of this section.

Training:

Confined space training must be verified for the entrant, attendant, and entry supervisor prior to starting any confined space activities. Use the Confined Space Entry and Rescue Quiz (SAFE028) to verify knowledge and training for all persons involved with the entry. Contact the Safety Director for help with coordinating formal confined space training as needed.

Training for the authorized attendant must include air monitoring, confined space evaluation, recognition of exposure symptoms, communication methods, and emergency procedures. It is TCG's policy the attendant will never enter the confined space even in the event of an emergency / rescue situation.

Training for the authorized entrant must address the hazards potentially present in the confined space, communication methods, air monitoring, and recognition of exposure symptoms.

Entry supervisors' training must include the same information as the attendant and entrants as they are ultimately responsible for the work being done. The entry

supervisor must also evaluate the space and plan the use of proper PPE, ventilation of the space, and emergency/rescue provisions.

Evaluation and Permitting:

An evaluation of all hazardous locations and confined spaces must be completed prior to entry. Use the Confined Space Evaluation form (SAFE009) to document the evaluation and establish hazards and potential hazards, proper entry procedure, protective equipment, and rescue methods/services. This evaluation must be posted in a conspicuous place near the space entry. In the case where the hazards of engulfment, non-breathable atmosphere, fall potential, and/or unexpected movement of the equipment are present, a Confined Space Entry Permit is required in addition to the evaluation form.

The Confined Space Entry Permit (SAFE027) must be completed by the entry supervisor. The permit is only good for one shift and may be cancelled by any entrant, attendant, or the entry supervisor any time conditions change, an emergency occurs, or for any other valid reason.

When completing the permit, the authorized entrants, authorized attendant(s) and the entry supervisor must be identified. The entrants and attendant(s) must also initial the form prior to entry and again when the work or shift is complete and they have exited the confined space.

Application:

Proper atmospheric testing for oxygen content, toxins, and flammable vapors must be done before any employee enters a confined space or hazardous atmosphere. Continuous monitoring of the entry space atmosphere must be done once the initial readings have been taken. Additionally, air monitor readings must be observed and documented on the entry permit every two hours until completion of the work or the end of the shift.

All entries into a permit required confined space must be done with an authorized attendant present. This person cannot be a member of the crew performing the work, but can be the direct supervisor as long as he/she never leaves their post at the entrance of the confined space(s).

If the attendant is monitoring more than one confined space and an emergency arises, both spaces must be evacuated.

Once work is completed in the confined space or the shift has ended, each entry permit must be cancelled and kept in the safety book as part of the jobsite safety documentation.

Rescue:

Non-Entry Rescue: The only type of rescue that TCG entry supervisors or attendants are authorized to perform are techniques that involve helping the entrants while staying outside the confined space (non-entry rescue). This may include such things as

providing emergency ventilation to correct an air quality issue or extracting the entrant by way of a harness/lifeline system attached to a tripod. Contact the Safety Department for additional help in designing and setting up non-entry rescue systems.

Entry Rescue: TCG employees will never be authorized to enter a confined space in order to perform any type of rescue operation. This type of rescue must be coordinated with the plant rescue team or local fire/emergency services or subcontracted out to a qualified company. Contact the Safety Director If your rescue plan requires entry into the confined space.

Air Monitoring Equipment:

TCG has standardized all of the confined space atmospheric monitoring equipment. Air monitors must be obtained by proper request through the Yard Manager at the Auburn Hills office. If additional or specialized equipment is needed, contact the Safety Director for assistance.

All air monitors must be calibrated at the Auburn Hills office at a minimum of every 6 months. Coordinate with the Yard Manager to swap units and accomplish this calibration without stopping confined space activities on the jobsite. Air monitor units can be shipped by air or ground.

The air monitor units must be bump tested prior to each use. Contact the Safety Department or Yard Manager for the proper equipment. **Gas units used for bump testing CANNOT be shipped via air; they MUST be ground shipped only.** Contact the Yard Manager for proper disposal of used bump-gas cylinders.

Energy Control Program (Lockout/Tagout)

A large number of TCG projects involve working in a production facility full of conveyors, tools, robots, and other equipment powered by various types of energy. The most common energy sources are:

- | | |
|--------------|---------------------|
| * Electrical | * Mechanical |
| * Hydraulic | * Pneumatic |
| * Chemical | * Thermal |
| * Steam | * Water |
| * Gravity | * Stored (Residual) |

Due to the nature of our work, TCG consistently has the potential to experience all of these energy sources. It is imperative to plan our work and work our plan when working in an environment that is so dangerous. All employees must know the potential hazards they will be exposed to and why it is extremely important to follow the lockout procedure. By participating in the site specific energy control program, our employees can ensure they are working in a safe environment, have control of their own personal safety, and will return to their loved ones without incident.

Lockout Equipment:

This section is intended to standardize the lockout equipment used by TCG in order to plan, organize, and communicate a successful lockout situation. This policy does not specify the brand or model number of any equipment to be used, but does list specific guidelines that must be followed when setting up the equipment to be used in the lockout program on a TCG jobsite.

Lockout Locks: Locks (plastic-bodied preferred) that adhere to the following color coding must be used to help in organizing and controlling a smooth working lockout plan. Lockout locks must only have one (1) key available per lock to ensure total control of that lock by the employee.

An **ORANGE**-bodied lock will be given to each TCG employee. This lock will be used only for lockout situations to ensure personal control over the energy sources in the area where each person is working.

A **YELLOW**-bodied lock will be used by supervision as the control lock in a group lockout situation. This lock will verify all power sources for the specified work area have been shut off and locked out and that it is safe for workers to place their personal orange locks onto the lockbox. The yellow locks will be placed in the main hasp on the group lock box in order to maintain management control.

Subcontractors must issue locks to their employees that are **standard by color** and have only one (1) key available per lock. Subcontractors can use any color except for yellow or orange or a color already in use by another subcontractor.

Group lock devices: When needing to lock out more than one employee on a single disconnect, a gang or scissor hasp is usually the best piece of equipment to use. Make sure that all employees know not to place a lock in the last available hole; a new hasp should be started instead.

The best method to use when locking out a large number of employees is a group lock box. This box should typically be red in color and should have a main hasp or latch that can accept a padlock for total control of the box. This box must always have a label that clearly indicates what system or panel the keys inside it control as well as the location of the disconnect(s).

Lock Identification: Each lockout lock must be labeled with the following minimum information:

1. Name of the person in control of the key for that lock.
2. Name of the company the above mentioned person works for.
3. A contact phone number for the person in control of the key for that lock.

This information can be applied in a number of different ways including, but not limited to, the traditional tag attached to the lock, a sticker placed on the body of the lock, or colored tape with the information written on it placed on the body of the lock.

A lockout log should also be developed for lock identification purposes in the case that the tag or other written identification information becomes smeared or otherwise illegible. Form SAFE056 is available for logging your employees' locks.

Signage: Communication of what equipment is locked out as well as the energized areas that need to be locked out is a key component to a successful lockout program. If a customer's lockout placards are not adequate in identifying what equipment should be locked out or which disconnects control which areas, then use of a group lockbox is recommended.

Another critical communication situation typical on almost every job TCG performs is when newly installed equipment begins to be powered on and turned over to the customer for debug/startup. Before the actual buy-off is done, signs must be displayed that indicate the equipment is now energized/live and that lockout is now required for entry into that area. An appropriate colored sign can be made or purchased on a per project basis, or you can contact anyone in the safety department to develop a sign using company provided software.

Specialty Devices: Many of our subcontractors perform work on detailed systems with which we are not always familiar. In most cases, these energized systems affect not only subcontractor employees, but TCG's as well. Disconnects such as, but not limited to, circuit breakers, lockable and non-lockable mechanical valves, and simple extension cords all have approved lockout devices that should be used to ensure the safety of all employees affected by the energy being locked out. When planning the work, verify with all necessary contractors what must be locked out and that properly designed devices will be used.

Lockout procedure:

A written lockout procedure must be developed on a site specific basis and communicated to all persons affected by energized equipment before they are exposed to any such hazards. The procedure should include the responsibilities of management and the trades-people, a description of lockout equipment to be used, a display of signage used to designate lockout areas, a step-by-step process for applying the lockout locks/notifying the required personnel/

verifying the energy sources are in fact de-energized, and review of the lock removal procedure. Personal lockout locks must also be removed at the end of every shift or as each employee concludes work in the affected area and moves to another work location.

Abandoned lock removal procedure:

The whole purpose of a lockout lock/program is to keep someone from energizing a power source while someone else is still working in or around that energy source. Therefore, it is **NEVER** acceptable to remove someone's lockout lock without following a documented lock removal procedure. This procedure is used to verify visually all employees have vacated the area in question, the owner of the lock has been contacted, and the equipment is operationally intact. Use form SAFE049 to document all steps taken to ensure the safety of all persons and equipment involved before actually removing an abandoned lockout lock.

Training Requirements:

The lockout procedure is best communicated with training documented on the Safety Orientation Acknowledgement (SAFE032) form during the initial safety orientation. In some cases, such as a new building project where no power exists, a specific training class held prior to introducing power to the site presents a better training arrangement. This training class should be documented by means of a class attendance sign-up sheet. The procedure must be in writing with the training documented for each employee and member of management including all subcontractors.

Tagout:

Occasionally, a customer's site requirements forbids the use of a lock for the purpose of isolating workers from energy hazards and instead requires the use of a tag only. In this case, contact the Group Safety Director immediately to discuss the process to be used on your project.

Suggested Best Practices:

- Each lockout lock key has a specific number etched into it. Use an engraver or permanent marker to copy that number onto the body of the lock to help with identification and organization.
- Develop a log to help organize the YELLOW control locks. Include the lock number, location/equipment it controls, who applied it and when, and who removed it and when. This will help to make sure they are actually controlled correctly and to make sure all locks have been removed at the end of the project.
- Attach a metal rim round key tag to each YELLOW control lock key before putting it into the group lock box. Include what equipment they control and the location of that equipment on the tag. This will drastically reduce the time it takes to locate and remove the locks placed during the lockdown process.
- When locking out overhead equipment such as buss plugs, it can be difficult to find all of them again when it comes time to re-energize the equipment. The practice of hanging long strips of red "Danger" or yellow "Caution" tape from the actual disconnect locked out will aid in finding their location at the end of the project.

Excavation

Digging up the earth can be a very dangerous task for a number of reasons. The threat of collapse and suffocation is always present along with many “unknowns” that could affect workers in an excavation in an instant. Various hazardous gasses exist underground along with live utilities and the ever-present exposures water introduces to an excavation.

TCG and subcontractor employees are expected to follow all federal, state, and customer requirements regarding excavation safety. This section does not repeat all OSHA requirements, but only clarifies specific TCG requirements.

Preparation:

Before any excavation activities begin, a call must be made to the One Call agency appropriate to the location of the project to ascertain the location of underground utilities (see list at the end of this section). If work is being done on private property where this type of agency has no authority, every effort must be made to identify the existence of any underground utilities. This can be done by reviewing the facility’s as-built drawings or by a scanning service.

Use the back of the Daily Excavation Checklist (SAFE030) to sketch the planned excavation and help identify any overhead, above ground, and underground interferences that potentially could affect the excavation work being done.

A competent person must perform an initial soil classification to determine proper sloping, shoring, trench shields, or other approved protective methods.

All excavations and shoring systems 20 feet or more in depth are required by OSHA to be designed by a professional engineer. The engineered shoring system must be installed according to the engineer’s specifications.

An emergency rescue plan must be developed and communicated to the workers before anyone enters the excavation.

Excavating:

The competent person and operator must remain in communication while digging in order to determine the initial soil conditions and monitor them for change as digging progresses. If conditions change, protective measures may need to be changed as a result.

Due to potential instability of the soil and vibration from the equipment, only the grade checker and/or the competent person will be allowed in the excavation while it is being dug and only after the proper sloping, shoring, benching or other protective measures are in place.

Excavated material must be placed a minimum of 2 feet back from the edge of the excavation or slope.

When doing exploratory or other very detailed/specific digging, a spotter positioned at the bucket is necessary. The spotter must maintain eye contact/communication with the operator and remain a safe distance from the bucket during the actual digging motion. The spotter must also stay out of the “line of fire” or pinch points that would expose

him/her to being caught between the bucket and/or other fixed objects in the immediate area.

Exposed underground utilities must be supported.

When an underground obstruction is encountered, the work must stop until the object is identified and deemed safe to proceed. When performing exploratory digging or digging in an area where underground utilities are known to be present, probing with a non-conductive probe or hand digging is required.

Working in Excavations:

Water must be removed from the excavation prior to entry by any person. Water control must also be maintained through the course of work activities in the excavation.

All excavations 4 feet or greater in depth being entered by an employee must have access/egress ladders or ramps within 25 feet of anyone working in the excavation. If job-built ladders are being used, refer to the Field Safety Checklist (SAFE019) for guidelines to make sure they are constructed correctly.

Use the Daily Excavation Checklist to document the required daily evaluation and inspection of all excavations entered by an employee. Make sure any items marked "NO" on the checklist are corrected prior to any worker entering the excavation.

Excavations must always be re-inspected by the competent person daily and any time conditions change – such as after a rainstorm.

Refer to the Confined Space/Hazardous Location section of this manual for further information regarding potential atmospheric hazards and methods of remediation.

Workers must always stay out from under loads being lowered into an excavation.

Workers must always remain inside the shoring system used for the work being done. If additional work must take place between the shoring system and the walls of the excavation, additional protective systems or sloping must be employed.

Whenever possible, the shoring system should be removed with all personnel outside of the excavation.

OSHA, MIOSHA, and Other Public Agency Inspections

The diverse scope of our work and the geographically scattered locations of our projects cause TCG jobs to come under the jurisdiction of many different governmental agencies. The primary agency is the Occupational Safety and Health Administration (OSHA). There are also numerous state and local agencies who may have either concurrent or exclusive jurisdiction.

OSHA (and most state agencies) is required by law to conduct regular “Scheduled General Inspections” of construction sites. They may also inspect jobs because of a complaint from a worker or because of serious injuries. These inspections take place without prior notice. The inspecting officer will arrive at the job-site, identify himself/herself, and announce their purpose. These inspecting officers have a legal procedure they must follow. They are generally very professional and unbiased. The procedures may seem slow or time consuming, however, be patient. They cannot be changed. If your project is selected for inspection, the following steps should be taken.

1. Contact the Safety Director for information and/or assistance upon arrival of the compliance officer. This is crucial to ensure we do everything we can to prevent citations and to have adequate evidence to appeal any that are written. The Safety Director will participate in the inspection if possible.
2. If you are in an operating plant, contact the Owner; we are required by law to notify them and request permission in the event of an OSHA/MIOSHA inspection. Additionally, they may have some objections, restrictions, or may want to observe.
3. Treat the Compliance Officer with professional courtesy.
4. There will be an opening conference prior to a site inspection. At this time we should request the reason for the inspection. This will determine whether a “wall-to-wall” or “specific area” inspection is performed and whether it will involve multiple contractors.
5. ALWAYS accompany the Compliance Officer when they are on the job-site. Make notes of what they observe, to whom they speak, document whatever they write down, and take pictures where they take pictures.
6. The Compliance Officer is entitled to have a private interview with employees. However, the employees’ steward may be present if either party so desires.
7. The Compliance Officer is entitled to meet with all employee representatives (stewards or business agents) during the inspection and to have an employee representative accompany him/her during the inspection. To avoid having all the stewards walking in the inspection, ask them to elect one steward (if you have more than one) who will go on the walk around and who will notify other stewards (as necessary) if there is a problem in their trade.
8. Make sure your injury records are up to date. Also have crane and forklift inspections, GFCI, and Toolbox Safety Meetings, along with any other Safety Program documentation ready for review by the Compliance officer. NOTE: Never give the Compliance Officer a copy of anything without verification from the Safety Director.

9. Feel free to show the Compliance Officer the leading indicator aspects of our safety program, how they are implemented, and how they aid and enhance the safety of our workers on the jobsite. The pre-task plans, safety observations, safety boards, and safety committees are above and beyond the OSHA requirements as well as the general industry standard practice. Showing off our program and the fact we follow our program will help in developing and maintaining good rapport with the Compliance Officer.
10. At the closing conference, ask the Compliance Officer for a detailed list of the findings. Forward a copy of that list to the Safety Director. We do our job well. We have nothing to hide or to worry about during an OSHA inspection. Present this attitude to the Compliance Officer from the beginning. Show them we are the best in the industry. A good attitude on our part will make the inspection easier and smoother for all involved.