January 01, 2013

From: David Westcott

To: Pierre Construction Group Employees

Re: Pierre Construction Group Health and Safety Manual

Dear Employees:

It is Pierre Construction Group's primary focus to provide a safe and healthy workplace for all employees. Safety is an important factor in how we run our organization and it is very important to me personally.

With this in mind we require Pierre Construction Group employees to follow all aspects of this Health & Safety Manual. This manual is a living document and is only as good as your ability to understand and to carry out its requirements. Therefore, in an effort to improve our commitment to our employees we desire your feedback in how we can make Pierre Construction Group an even safer organization.

Please take time to understand all aspects of this manual and provide others and me with any ideas or recommendations you may have on how we can improve upon the safety of all employees, subcontractors, clients, the public, and guests of Pierre Construction Group.

Your commitment to safety should be one of primary focus during your career at Pierre Construction Group.

Thank you for your commitment to a safe work place.

Sincerely,

David Westcott

David Westcott Owner – Pierre Construction Group

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#### I. CORPORATE SAFETY PROCEDURES

Many companies involved in construction have written safety plans for individual safety topics, but few have an umbrella plan to summarize overall safety. This Health and Safety Manual of safety policy states Pierre Construction Group overall view of safety and the tenets of the safety program for our various construction sites.

In order to establish and organize good safety policies and procedures, this Health and Safety Manual summarizes information regarding safety policies and procedures at Pierre Construction Group.

The Construction Safety Director is responsible for implementing and updating this plan. A printed copy of the current plan is to be kept at the corporate office in the Safety Director's office and at job sites with each Pierre Construction Group superintendent.

## A. Corporate Safety Philosophy Statement

This general company safety philosophy has been developed to reflect and communicate the proactive safety attitude maintained at Pierre Construction Group. Pierre Construction Group will comply with appropriate safety and security laws and regulations such as those established by:

- The Occupational Safety and Health Act (OSHA)
- The EPA (Environmental Protection Agency)
- The DOT (Department of Transportation)
- All other applicable federal, state, and local safety and health regulations

We believe that the safety of employees is of utmost importance, along with quality, production, and cost-control. Maintenance of safe operating procedures at all times is of both monetary and human value, with the human value being far greater to Pierre Construction Group, the employee, and the community. The following principles support this philosophy:

- All injuries and incidents are preventable through establishment and compliance with safe work procedures.
- The prevention of bodily injury and safeguarding of health are the first considerations in all workplace actions and are the responsibility of every Pierre Construction Group employee at every level.
- Written safety plans describing the safe work practices and procedures
  to be practiced in all workplace actions are an essential element of the
  overall workplace safety program. All Pierre Construction Group
  employees at every level are responsible for knowing and following the
  safety practices described in the written safety plans.

• Off the job, all Pierre Construction Group employees should be similarly safe and demonstrate awareness of potential hazards.

Because we care about our employees and strive to provide a safe work place, we have put into place a number of written safety plans. These written plans provide guidance and direction for the safety issues they cover. The topics covered in written safety plans at Pierre Construction Group include the following:

- A corporate safety manual, (This includes all relevant OSHA, EPA DOT and other state and local regulations that Pierre Construction Group will comply with. Examples include Fall Protection, Electrical Safety etc.)
- Incident/Incident Reporting and Compliance Manual

Pierre Construction Group's paramount obligation is to provide a safe and healthful work environment. This can be achieved through training and information-provision to all levels of Pierre Construction Group employees regarding proper work practices and safe operating practices. Achievement of this goal is to be checked through regular inspections of job sites and equipment where unsafe conditions might be found.

In addition, it is the policy of Pierre Construction Group to provide a place of employment reasonably free from hazards, which may cause illness, injury, or death to our employees. It is also Pierre Construction Group policy to establish an effective and continuous safety program incorporating educational and monitoring procedures maintained to teach safety, correct deficiencies, and provide a safe, clean working environment. All Pierre Construction Group Superintendents, Project Managers, and Directors are responsible for the enforcement of safety policies and practices. They must ensure that:

- Employees are trained in appropriate safety procedures. Individual safety files are maintained by the Safety Director for all employees.
- They notify The Safety Director, and complete the necessary forms if an incident or work-related health problem occurs at their job site.
- Equipment and property within their area of responsibility is maintained in a safe, hazard-free condition.

It is the employee's responsibility to report or correct unsafe equipment and practices. Safety is every Pierre Construction Group employee's business, all the time. All employees have a responsibility to themselves and to Pierre Construction Group for their safety and the safety of co-workers. All Pierre Construction Group employees are required to:

 Comply with all federal, state, and local rules and regulations relevant to their work.

- Observe all company rules and regulations related to the efficient and safe performance of their work.
- Integrate safety into each job function and live by this philosophy in the performance of job duties.
- Report or correct unsafe equipment and practices.
- Report any incidents that occur while on the job.

## B. Disciplinary Policy

All safety rules, procedures, and plans in effect at Pierre Construction Group are intended to be followed. Upon violation of any company safety rule, the violating employee will be disciplined. The list of possible disciplinary actions includes:

- Verbal reprimand An informal discussion of the incorrect behavior that should take place as soon as possible after the superintendent has knowledge of the safety misconduct.
- Written reprimand A written form documenting the safety misconduct, to be presented to the employee and placed in the employee's personnel file.
- Warning of probation A written form documenting the safety misconduct and warning the employee that another incident will lead to probation, to be presented to the employee and placed in the employee's personnel file.
- Probation A trial period during which the employee is given specific rules and goals to meet, during which, if he or she cannot meet the rules and goals, he or she is subject to termination.
- Warning of suspension A written form documenting the safety misconduct and warning the employee that another incident will lead to suspension, to be presented to the employee and placed in the employee's personnel file.
- Suspension A period of time during which the employee is debarred from the function of attending work and during which the employee is not paid.
- Dismissal/termination of employment The permanent separation of an employee from Pierre Construction Group, initiated for disciplinary reasons, safety misconduct.

Certain circumstances warrant disciplinary action. Upon violation of any Pierre Construction Group safety rule, the violating employee will be penalized. The severity of the penalty will be in direct correlation to the severity of the safety violation.

Subcontractors receive:

- Verbal reprimand An informal discussion of the incorrect behavior that should take place as soon as possible after the superintendent has knowledge of the safety misconduct.
- Written warning A written form documenting the safety misconduct, to be presented to the Subcontractor and placed in the project and field file.
- Written Citation This authorizes Pierre Construction Group to withhold money from the subcontractors draw. This will always be used if the subcontractor is responsible for OSHA citations levied against Pierre Construction Group
- Job Dismissal Pierre Construction Group Superintendents can remove subcontractors and their crews from the job for violating safety rules. The Safety Director shall be notified prior to Job Dismissal of the subcontractor.
- Contract Termination Contracts may be terminated if the subcontractor fails to follow all safety rules. The Safety Director will perform all Contract Terminations for failure to follow safety rules.

#### C. Administrative Duties

The Safety Director has overall responsibility for enforcement of this program. He will review all disciplinary action before it is taken. He will also review to help establish trends, this is vitally important when deciding to award contracts to subcontractors. Project Managers will review this collected information with the targeted subcontractor before that subcontractor is allowed to bid on future work.

## II. INCIDENT REPORTING AND INVESTIGATION

#### A. Preface

This Incident Reporting and Investigation Plan has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group requires all employees to meet these requirements and all OSHA regulations.

#### B. Purpose

An incident reporting and investigation plan prescribes methods and practices for reporting and investigating incidents that can be read and understood by all managers, supervisors, and employees. No matter how conscientious the safety effort at a company, incidents are going to happen sometimes due to human or system error.

This written Incident Reporting and Investigation Plan is intended to demonstrate Pierre Construction Group, compliance with the requirements in 29 CFR 1904 by:

- Prescribing methods and practices for reporting and investigating incidents, and
- Providing a means to deal with workplace incidents in a standardized way

In addition it is the policy of Pierre Construction Group to comply with all workers' compensation laws and regulations. The requirements of this plan apply to all operations and departments at Pierre Construction Group.

## C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at any time. It is located at Pierre Construction Group corporate office and at each construction site field office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director

#### D. Incident Reporting Procedures

Pierre Construction Group employees injured on the job are to report the injury to their supervisor as soon as possible after the incident/incident. Near miss incidents should be reported as well. The supervisor must immediately notify the Safety Director when an incident/incident occurs.

Pierre Construction Group employee(s) witnessing an incident at work is to call for emergency help or whatever assistance appears to be necessary. In addition, the personnel or employee is immediately to report the incident to his or her supervisor and take part in answering questions related to the incident and / or incident investigation.

All incidents involving Pierre Construction Group personnel must be reported. A full investigation of all serious incidents is also required. Serious incidents are defined but not limited to the following:

- Any fall from 6' or greater;
- Any "struck-by" or "crushing" incident;
- Any electrocution or shock;
- Any motor vehicle/heavy equipment incident (whether any of these resulted in an injury or not)

Incidents are to be reported using the companies "Incident Reports" and Workers Compensations Incident Report" forms.

- Incident Report Forms These forms are to be used to record all nonemergency incidents, injuries or near misses by Pierre Construction Group employees. This form is to be completed immediately after the incident or incident is reported and faxed immediately to The Safety Director. This will give Pierre Construction Group the initial information needed to perform a full incident investigation if required.
- Workers Compensation Report Forms (First Report of Injury) These forms are to be used to record all emergency incidents or injuries to Pierre Construction Group employees. This form is to be filled out immediately after the incident or incident is reported and faxed immediately to the Safety Director. This will give Pierre Construction Group the initial information needed to perform a full incident investigation if required.

## E. Incident Investigation Procedures

Thorough investigation of all incidents will lead to identification of incident causes and help:

- Reduce economic losses from injuries and lost productive time;
- Determine why incidents occur, where they happen, and any trends that might be developing;
- Employees develop an awareness of workplace problems and hazards;
- Identify areas for process improvement to increase safety and productivity;

- Note areas where training information or methods need to be improved;
   and
- Suggest a focus for safety program development
- For all incident investigations, the Safety Director will be contacted and an approved qualified individual or company will be named to perform the following duties:
- Conduct the incident investigation at the scene of the injury as soon after the injury as safely possible.
- Collect the names, addresses and phone numbers of all injured employees and all eye witnesses.
- Ask the employee involved in the incident and any witnesses, in separate interviews, to tell in their own words exactly what happened.
- Repeat the employee's version of the event back to him/her and allow the employee to make any corrections or additions.
- After the employee has given his/her description of the event, ask appropriate questions that focus on causes.
- When finished, remind the employee the investigation was to determine the cause and possible corrective action that can eliminate the cause(s) of the incident.
- Complete an incident investigation report with the employee and review data with them for accuracy.
- The incident investigation report is used to:
- Track and report injuries on a monthly basis;
- Group injuries by type, cause, body part affected, time of day, and process involved;
- Determine if any trends in injury occurrence exist and graph those trends if possible;
- Identify any equipment, materials, or environmental factors that seem to be commonly involved in injury incidents;
- Discuss the possible solutions to the problems identified with the project teams: and
- Proceed with improvements to reduce the likelihood of future injuries.

## F. Injury/Medical Issues

If a workplace incident results in injury or illness requiring hospitalization of three or more employees or a fatality of one or more employee, the Safety Director reports the incident within eight hours by phone or in person to the nearest OSHA office at (800) 321-6742.

If an injured person is taken to a doctor, a statement from the doctor will be attached to the incident report form.

Weekly compensation for workplace injuries or illnesses requiring time off work, as indicated by Georgia Worker Compensations law, applies after seven calendar days. If the disability continues for more than twenty-one calendar days, workers' compensation goes back to day one.

On the day of injury, the company will cover the time loss due to doctor and/or emergency room visits or inability to work, up to a maximum of eight (8) hours.

Any time a Pierre Construction Group employee is away from work because of an incident on-the-job, the Superintendent shall consult with The Safety Director if the employee is to be away from work for more than seven (7) days with regard to how to charge the employee's time.

## G. Record Keeping

The Safety Director is responsible for maintaining the following records and documentation for all injuries and incidents:

- OSHA 300 log of injuries and illnesses
- First Report of Injury for Pierre Construction Group Employees
- Incident Investigation Reports
- Health and Safety Training Records
- Pierre Construction Group employee Medical Records and Notes

## H. Training

This plan is an internal document guiding the action and behaviors of Pierre Construction Group employees, so they need to know about it. To communicate this incident reporting and investigation plan, all employees are given a thorough explanation as to why the plan was prepared and how individuals may be affected by it.

The information and requirements of this written plan are presented to employees during Pierre Construction Group ongoing quarterly training sessions and new hire orientations.

## I. Program Evaluation

The incident reporting and investigation program is evaluated and updated by The Safety Director annually to determine whether the plan is being followed and if further training may be necessary.

## PIERRE CONSTRUCTION GROUP

# Supervisor's Accident, Incident and First Aid Report

Complete this report upon notification of a **Worker's Compensation Injury**. This report is to be completed by the injured employee's supervisor. Please submit to Keith Badey (**FAX 678.544.3139**)

Complete este reporte al recibir notificacion de un Golpe de Compensación de Trabajadores. Este reporte debe ser completado por el supervisor del empleado que fue agolpiado. Por favor de someter este reporte al Departamento de Recursos Humanos (FAX 678.544.3139).

T 1 T	4.								
Job Location:  Localizacion de  □ Acci Trabajo					☐ Accident	☐ Fir	st Aid /	Incident	
on	Last Name: Apellido		First Name: Nombre			Middle Initi Inicial	ial: S	SSN:	
ormati on del ıdo	Home Address: Direction					Home Phon Numero de			
Employee Information Informacion del Empleado	City: Ciudad		State: Estado	Zip C Codig	ode: o Postal	Gender: Sexo	☐ Male	e (Masculino) nale	Age: Edad
Emple Inf	Estado Civil		☐ Married(Casado) ☐ Widov		`	ivorciado)		Date of Birth: Fecha de Nacimie	nto
Job Information Informacion del Trabajo	Date of Hire: Primer dia de Empleo	Length of T Tiempo en I (Years) (Años)	(Months) (Meses)		Date Started Cur Fecha de comien presente		ajo J T ti	Length of Time in Cu Job: Fiempo complete en e rabajo presente (Years) Months) (Años) Meses)	
Job I ormac	Job Title: Titulo de Trabajo						Wage Per Pago por		
Infe	Time Started Work: Comienzo de Trabajo				isor's Name: e del Supervisor				
nation el	Date of Injury/Accident: Fecha del Accidente/Golpe	Time: Hora	am	□ pm		PCP's prope ropiedad de I		Yes(Si) No(No)	
Injury / Accident Information Informacion sobre el Golpe/Accidente	Date Reported: Fecha en que fue reportado	Time Report Hora en que reportado		□ pm	Wedı Frida	day(Lunes)	☐ Tueso rcoles) ☐ ☐ Satu	day(Martes)  1 Thursday(Juevesurday(Sabado)	s)
ry / Ac Infort Gol	Who was injury/accident report Aquien se le reporto el golpe/ir								
Injui	Witness's Name(s): Nombres de Testigos								

	Describe injury or illness and parts of the body affected: (e.g., 1½ inch lad Describa el golpe/incidente y las partes del cuerpo afectadas:(ejemplo: un corto	
	Type; (Tipo)  □ Laceration(Corte) □ Strain(Linaje) □ Sprain(Torcedura) □ Rash(Sarpudillo □ Eye(Ojo) □ Inhalation(Inhalacion	
	☐ Head(Cabeza) ☐ Face(Cara) ☐ Nose(Nariz) ☐ Neck(C☐ Front or Torso(Torso del Frente)	Cuello) Dack of Spine(Espina Dorsal)
	Left Side (Lado Izquierdo)	Right Side (Lado Derecho)
las	L Eye (Ojo) L Shoulder (Hombro)	R Eye (Ojo) R Shoulder (Hombro)
ed ly)	☐ L Upper Arm (Brazo Superior)	R Upper Arm (Brazo Superior)
Injur ıt app o afec	L Elbow (Codillo) L Lower Arm (Brazo Posterior)	R Elbow (Codillo) R Lower Arm (Brazo Posterior)
(s) tha erp	☐ L Wrist (Muñeca)	R Wrist (Muñeca)
Body Part(s) Injured (Check all that apply) Partes del Cuerpo afectadas	L Hand (Mano) L Finger (s)(Dedos)	R Hand (Mano) R Finger (s)(Dedos)
ody Yheo Ss d	L Upper Leg (Pierna Superior)	R Upper Leg (Pierna Superior)
B (C arte	☐ L Knee (Rodilla) ☐ L Lower Leg (Pierna Posterior)	R Knee (Rodilla) R Lower Leg (Pierna
P:	L Ankle (Tobillo)	Posterior)
		R Ankle (Tobillo)
	☐ L Foot ☐ L Toe(s)	$\square$ R Foot $\square$ R Toe(s)
	Describe in detail the exact location where the injury occurred: Describa en detalles la localizacion exacta en donde sucedio el incidente:	
Injury / Accident Information	What was the employee doing just before the incident occurred? Antes de suceder el accidente que estaba haciendo el empleado?	

	What happened? Que Sucedio?				
	Where did the employee receive treatment? Donde recibio tratamiento el empleado ?				
	☐ Caduceus Occupational Health Center (Caduceus Centro Medico Ocupacional)				
Treatment Tratamiento	Emergency Room Cuarto de Emergencia  Name and address: Nombre y Direccion				
reat:	Name and address:				
Tr	Other (Otro)  Name and address: Nombre y Direction				
	What personal protective equipment was the employee wearing? Que tipo de equipo protectivo estaba usando el empleado? (Check all the apply) Marca todas la que aplican				
ivo	☐ Safety glasses (Gafas de Seguridad) ☐ Goggles (Gafas) ☐ Faceshield (Cubridor de Cara) ☐ Hardhat (Casco)				
otecti	☐ Hearing protection (Proteccion de Oidos) ☐ Half-mask respirator (Mascara Respiradora)				
ı Pro	☐ Cotton gloves (Guantes de Corte) ☐ Leather gloves (Guantes de Cuero) ☐ Cut resistant gloves (Guantes				
E :cion	resistentes de Corte)  Work boots (Non-Safety Toe)(Botas de Trabajo – Sin seguridad de Dedos)  Work boots				
PPE Equipo de Proteccion Protectivo	(Safety Toe) Botas de Trabajo – Con seguridad de Dedos Dother (List below) (Otro – Escriba Abajo)				
de P	Other PPE Worn: Otro Tipo de PPE Utilizado				
ipo (					
Equ					
	What was the same of the spring of the size of the land of the same delicates				
estigation Supervisor	What was the cause of the accident/injury? Cual fue la causa del golpe o accidente?  (Give very specific details of how the accident occurred, attach another sheet if necessary) Proveer detalles especificos explicando como paso el accidente, agregar otro paper si es necesario  UNSAFE ACT ACTO INSEGURO CONDICION INSEGURA				
Supervisor's Investigation Investigacion del Superviso					
Superv Investig					

	Employee's suggestion(s) on how to prevent this inju		curring: (Use additional sheet if necessary) rencias del empleado: (Usar papel adicional si es neces	ario)		
	Tara prevenii que este goipe/accidente succua otra o	vez cuares son las suger	cencias dei empicado. (Osar paper adicionar si es neces	ario)		
ns 7as						
tion						
Ac						
Ç <sub>o</sub>						
Corrective Actions Acciones Correctivas	What action(s) have been taken to prevent this accid	lent from reoccurring:	(Use additional sheet if necessary)			
orr cio	Que acciones se han tomado para prevenir que suce					
Aç C						
			eived for my injury is sufficient at this time. Shou			
	further treatment for this injury I will notify my Supervisor or the Human Resources Department immediately. I will seek treatment from the company approved medical care provider only, for this, or any job related injury. I also understand if I seek medical					
ion	attention on my own Pierre Construction Group w			carcar		
cati	-	-				
ij.			cido de primeros auxilios para el golpe es suficien			
Ae.			lpe le notificare inmediatamente a mi supervisor o medico por un proveedor de cuidado medico apro			
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#### III. PERSONAL PROTECTIVE EQUIPMENT

#### A. Preface

This Personal Protective Equipment Plan has been written as a general guide for Pierre Construction Group employees.

## B. Purpose

The basic element of any PPE program is an in depth evaluation of the equipment needed to protect against the hazards at the workplace; this is the initial hazard assessment for which written documentation is required. Two basic objectives of any PPE program should be to protect the wearer from incorrect use and/or malfunction of PPE. The purpose of this Personal Protective Equipment (PPE) Program is to document the hazard assessment, protective measures in place, and PPE in use at Pierre Construction Group. PPE devices are not to be relied on as the only means to provide protection against hazards, but are used in conjunction with guards, engineering controls, and sound work practices. If possible, hazards will be abated first through engineering controls, with PPE to provide protection against hazards which cannot reasonably be abated otherwise.

Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.

This written program documents steps Pierre Construction Group has taken to minimize injury resulting from various occupational hazards present at our construction sites and warehouse by protecting workers through the use of PPE when the hazards cannot be eliminated.

Establishing an overall written PPE program detailing how employees use PPE makes it easier to ensure that they use PPE properly in the workplace and document our PPE efforts in the event of an OSHA inspection. Pierre Construction Group PPE program covers:

- Hazard assessment
- PPE selection
- Employee training
- Cleaning and maintenance of PPE
- PPE specific information

#### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

#### D. Hazard Assessment

The Project Superintendent(s) and warehouse manager are required to conduct formal walk through surveys of the jobsite frequently where hazards exist or may exist to identify sources of hazards to employees. They consider these basic hazard categories:

 Impact, Fall Hazards, Heat, Penetration, Harmful Dust, Compression (roll over), Light (optical) Radiation, Chemical, Sources of Motion, Sources of High Temperatures, Sources of Harmful Dust, Sources of Light Radiation, Sources of Falling Objects, Sources of Sharp Objects, Sources of Rolling or Pinching Objects, Layout of Workplace, Electrical hazards.

## E. PPE Selection Guidelines

Once any hazards have been identified and evaluated through hazard assessment, the general procedure for selecting protective equipment is to:

- Become familiar with the potential hazards and the type of protective equipment (PPE) that are available, and what they can do.
- Compare types of equipment to the hazards associated with the environment.
- Select the PPE which ensures a level of protection greater than the minimum required to protect employees from the hazards.
- Fit the user with proper, comfortable, well fitting protection and instruct employees on care and use of the PPE. It is very important that the users are aware of all warning labels for and limitations of their PPE.

It is the responsibility of the Project Superintendent and Warehouse Supervisor, when appropriate, to reassess the workplace hazard situation as necessary, to identify and evaluate new equipment and processes, to review incident records, and reevaluate the suitability of previously selected PPE. Elements which should be considered in the reassessment include:

- Adequacy of PPE Program
- Incidents and Illness Experience
- Levels of Exposure (this implies appropriate exposure monitoring)
- Adequacy of Equipment Selection
- Number of Man-hours that Workers Wear PPE
- Adequacy of Training and Fitting of PPE
- Adequacy of Program Records
- Recommendation for Program Improvement and Modification

## F. Employee Training

Pierre Construction Group provides training for each employee who is required to use personal protective equipment. Pierre Construction Group employees who perform operations that require their workers to wear PPE are also required to train their personnel. Training for Pierre Construction Group includes:

- When PPE is Necessary
- What PPE is Necessary
- How to Wear Assigned PPE
- Limitations of PPE
- The Proper Care of PPE

Employees must demonstrate an understanding of the training and the ability to use the PPE properly before they are allowed to perform work requiring the use of the equipment.

Employees are prohibited from performing work without donning appropriate PPE to protect them from the hazards they will encounter in the course of that work.

If the Project Superintendent or Warehouse Supervisor has reason to believe an employee does not have the understanding or skill required they must be retrained. Circumstances where retraining may be required include changes in the workplace or changes in the types of PPE to be used which would render previous training obsolete. Also, inadequacies in an affected employee's knowledge or use of the assigned PPE which indicates that the employee has not retained the necessary understanding or skills.

Because failure to comply with company policy concerning PPE can result injury as well as in OSHA citations and fines, an employee who does not comply with this program will be disciplined for noncompliance.

## G. Cleaning and Maintenance

It is important that all PPE be kept clean and properly maintained by the employee to whom it is assigned. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. PPE is to be inspected, cleaned, and maintained by employees at regular intervals as part of their normal job duties so that the PPE provides the requisite protection. Supervisors are responsible for ensuring compliance with cleaning responsibilities by employees. If PPE is for general use, the Project Superintendent has the responsibility of ensuring that PPE is properly cleaned and maintained. If a piece of PPE is in need of repair or replacement it is the responsibility of the employee to bring it to the immediate attention of their supervisor. It is against work rules to use PPE that is in disrepair or not able to perform its intended function.

#### H. General PPE Information

## 1. Eye and Face Protection

It is the policy of Pierre Construction Group that as a condition of employment all employees are required to wear ANSI approved safety glasses and/or goggles/face shields to help prevent eye and face injuries, including those resulting from flying particles and liquid chemicals.

All supervisors are responsible for ensuring employees under their charge are in compliance with this policy.

All employees who work in designated work areas and/or job assignments are responsible for wearing goggles/face shields to comply with this policy. Failure to comply will result in disciplinary action up to and including discharge. All employees who are required to wear goggles/face shields must routinely inspect and properly care for their goggles/face shields.

#### 2. Foot Protection

It is the policy of Pierre Construction Group that as a condition of employment, all employees working in designated work areas and/or job assignments are required to wear hard soled safety shoes to help prevent foot injuries, ankle injuries, slips, and falls.

Those personnel who work in non designated areas of the company and vendors and visitors will be allowed to walk through the designated work areas (warehouse) without safety shoes as long as they remain in designated areas only.

All employees who work in designated work areas and/or job assignments are responsible for purchasing and wearing safety shoes to comply with this policy. Failure to comply will result in disciplinary action up to and including discharge.

The Human Resources Department or the workers Supervisor are responsible for informing new employees who are assigned to the designated work areas of the safety shoe policy and the procedures for obtaining them. The new employee are responsible for reporting to their first day of work wearing approved safety shoes.

#### 3. Hand Protection

It is the policy of Pierre Construction Group that as a condition of employment that all employees working in designated work areas and/or job assignments are required to wear gloves to help prevent hand injuries, including cuts, burns, chemical exposure, for example. All supervisors and managers are responsible for ensuring personnel under their charge are in compliance with this policy.

All employees who work in designated work areas and/or job assignments are responsible for wearing company provided gloves to comply with this policy. Failure to comply will result in disciplinary action up to and including discharge.

All employees required to wear protective gloves must routinely inspect and properly care for their assigned gloves.

#### 4. Head Protection

It is the policy of Pierre Construction Group that as a condition of employment that all employees are required to wear ANSI approved hard hats to help prevent head injuries, including those resulting from falling objects, bumping the head against a fixed object, or electrical shock and at all times when working on one of our construction sites.

All employees who work in designated work areas and/or job assignments are responsible for wearing company provided hard hats to comply with this policy. Failure to comply will result in disciplinary action up to and including discharge.

All employees required to wear hard hats must routinely inspect and properly care for their hard hats.

#### 5. Hearing Protection

It is the policy of Pierre Construction Group that as a condition of employment that all employees are required to wear ANSI approved hearing protection to help prevent hearing injuries when operating or working around loud equipment.

All employees who work in designated work areas and/or job assignments are responsible for wearing company provided hearing protection to

comply with this policy. Failure to comply will result in disciplinary action up to and including discharge.

Operation	Hazards	Recommended Protection
Acetylene – Burning / Cutting / Welding	Sparks / Harmful Rays / Molten Metal / Flying Particles	Shaded Welding Helmet or Cutting Goggles / Heat Resistant Gloves / Skin Protection
Electric Arc Welding	Sparks / Intense Rays / Molten Metal	Shaded Welding Helmet / Welding Gloves / Skin Protection
Chop Saw / Cutting	Flying Particles / Noise	Safety Glasses with Side Shields / Face Protection / Gloves / Skin Protection / (Hearing Protection as needed)
Grinding	Flying Particles / Hand Injury	Safety Glasses with Side Shields / Face Protection / Gloves / Skin Protection
Hand and Power Tools	Cuts / Flying Particles	Hardhat / Safety Glasses with Side Shield / Skin Protection
Aerial Lifts	Fall Hazard / Tip Over / Struck by / Crushed	Personal Fall Arrest System / Hardhats / Safety Glasses
Scissor Lifts	Fall Hazard / Tip Over / Struck by	Personal Fall Arrest System / Proper Guardrails Installed / Hardhats / Safety Glasses
Working From Ladder	Fall Hazard	Clean Boots (No Mud) / Personal Fall Arrest System / Hardhats / Safety Glasses
Working with Metal Panels	Cut Hazard	Gloves

#### IV. COMPRESSED GAS PLAN

#### A. Preface

This Compressed Gas Plan has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group employees to meet these requirements and all OSHA regulations.

## B. Purpose

It is the policy of Pierre Construction Group to permit only trained and authorized employees to handle, store, use, and inspect compressed gases and equipment at any time. This policy is applicable to daily users and those who only occasionally have cause to use the equipment.

This written Compressed Gas Plan describes methods and practices for care and use of compressed gases that can be read and understood by all managers, supervisors and employees at Pierre Construction Group. This written plan is intended to be used to:

- Create an awareness of the hazards among our workforce,
- Standardize procedures for use and care of the equipment,
- Provide a consistent format for training employees on the proper procedures to be used,
- Minimize the possibility of injury or harm to our employees, and
- Demonstrate Pierre Construction Group compliance with OSHA's compressed gas requirements

#### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

#### D. Inspection Procedures

Project Superintendents and the Warehouse Supervisor are qualified to determine that compressed gas cylinders at the company are in a safe condition to the extent that can be determined by visual inspection.

Of course, if a cylinder is found to be unfit in its present condition, then the supervisor must determine whether it can be repaired or must be scrapped. If a cylinder is repaired, it can only go back into service if the defect is corrected as specified according to the requirements listed above.

## E. Handling Procedures

Compressed gases are considered to be handled when employees perform any of the following activities:

- Identify contents;
- Fill, change gas service, maintain and move containers; and
- Connect containers and withdraw content.

Our handling procedures include the following:

- Identify a gas and its dangers before using it. Look for this information on labels, MSDSs, and cylinder markings. If you don't know what's in a cylinder, don't use it.
- Examine cylinders as soon as you receive them. If you detect signs of damage or leakage, move them to a safe, isolated area and return them to the supplier as soon as possible.
- Use only regulators, pressure relief devices, valves, hoses, and other auxiliary equipment that is designed for the specific container and compressed gas/cryogenic liquid to be used.
- Do not interchange equipment between different types of gases.
- Make sure valves, hoses, connectors, and regulators are in good condition. Don't use cylinders without them.
- Use pressure relief devices and safety devices to help maintain cylinder or system pressure at the desired levels. (Exceeding the desired pressure could damage the cylinder or system.)
- Check to see if regulators, hoses, and gauges can be used with different gases. Assume they cannot.
- Never open valves until regulators are drained of gas and pressureadjusting devices are released. When opening cylinders, point outlets away from people and sources of ignition, such as sparks or flames.
   Open valves slowly. On valves without hand wheels, use only supplierrecommended wrenches. On valves with hand wheels, never use wrenches.
- Do not tamper with connections and do not force connections together.
- Do not hammer valves open or closed.
- Do not drop, bang, slide, clank, or roll cylinders.

- Cylinders may be rolled along the bottom rim.
- Don't let cylinders fall or have things falling on them.
- Don't lift a cylinder by its cap unless using hand trucks so designed.
- Use carts or other material handling equipment to move cylinders. Use ropes and chains to move a cylinder only if the cylinder has special lugs to accommodate this. Some cylinders may require special hand trucks.
- Keep cylinders secured and upright. (But never secure cylinders to conduit carrying electrical wiring.)
- When transporting compressed gas cylinders, be sure the vehicle is adequately equipped to haul compressed gases safely. Stop the engine while loading or unloading flammable compressed gases.

## F. Storage Procedures

The following activities are involved in safely storing compressed gases:

- Group gases,
- Separate combustibles,
- Avoid corrosives or areas where container damage can occur,
- Position containers properly, and
- Use indoor and outdoor storage appropriately.

Our storage procedures for compressed gases include the following:

- Store cylinders upright.
- When a cylinder is in storage, keep the steel protective cap screwed on.
  This step reduces the chance that a blow to the valve will allow gas to
  escape.
- Group cylinders by types of gas.
- Store full and empty cylinders apart.
- Store gases so that old stock is removed and used first.
- To keep cylinders from falling over, secure them with chains or cables.
- Store compressed gas containers in dry, well-ventilated areas away from exits and stairways. If outside, store containers off the ground and out of extremely hot or cold environments.
- Do not store compressed gas containers in high pedestrian and vehicle traffic areas. (Containers are more likely to be damaged there.)
- Store oxygen cylinders at least 20 feet from flammables or combustibles or separate them by a 5-foot, fire-resistant barrier.

- Keep oil and grease away from oxygen cylinders, valves, and hoses.
- If your hands, gloves, or clothing are oily, do not handle oxygen cylinders.

## G. Usage Procedures

Safe use of compressed gases involves the following activities:

- Properly handle leaking containers,
- Prevent abuse,
- Identify contents,
- Properly use container and valve caps and plugs, and
- Return empty containers.

Our procedures for using compressed gases include the following:

- Remove any leaking containers to a well-ventilated area and post a warning of the hazard.
- Shut a leaking valve and tighten the valve gland or nut. Then try
  opening the valve; if it still leaks, close it and tag the container
  unserviceable.
- Do not misuse containers (i.e., using them for support); only use them as they were intended.
- Keep containers away from fire, sparks, and electricity.
- Don't smoke or allow others to smoke in the vicinity of flammable compressed gas containers.
- Do not subject containers to extreme heat or cold.
- Contact the manufacturer/supplier with questions about safe handling.
- Always keep removable caps and valve outlet caps/plugs on containers except when connecting to dispensing equipment.
- Comply with ANSI Z49.1 when using or storing oxyfuel-gas containers for welding and cutting and other similar activities.
- Be sure valves are closed when not using the container and before returning containers. Properly label returning containers.

#### H. Gas-Specific Safety Procedures

Pierre Construction Group complies with the following gas-specific procedures:

 General requirements for gases such as chlorine, sulfur dioxide, and nitrogen, in 29 CFR 1910.101.

- Acetylene requirements in 29 CFR 1910.102.
- Oxygen gas requirements in 29 CFR 1910.104.

## I. Compressed Gas Emergency Procedures

In an emergency we may seek advice from the Chemical Transportation Emergency Center, known as CHEMTREC, which can be reached 24 hours a day by dialing (800) 424-9300. This service is provided by the Chemical Manufacturers Association.

## **Training Program**

The Project Superintendent and Warehouse supervisor are responsible for getting personnel who will handle, store, or use a compressed gas proper training. Under no circumstances will an employee handle, store, or use a compressed gas until he/she has successfully completed this company's compressed gas training program. This includes all new workers who will handle, store, and use compressed gases, regardless of claimed previous experience.

General training elements include the following:

- Compressed gases and equipment at the company
- Hazards of compressed gases and equipment at the company
- Personal protective equipment
- Inspection procedures
- Handling procedures
- Storage procedures
- Usage procedures
- Gas-specific safety procedures

## J. Recordkeeping

The Corporate Safety Director is responsible for maintaining records of cylinder inspections and maintenance.

## K. Disciplinary Procedures

Constant awareness of and respect for compressed gas safety procedures and compliance with all safety rules are considered conditions of employment. Supervisors shall have the right to issue disciplinary warnings to employees up to and including termination, for failure to follow the guidelines of this compressed gas safety program.

#### L. Program Evaluation

Although we may not be able to eliminate all problems, we try to eliminate as many as possible to improve employee protection and encourage employee safe practices. Therefore, The Safety Director is responsible for evaluating and updating this written plan. The evaluation will include a review of reported incidents, as well as near misses, to identify areas where additional safety measures need to be taken.

The Safety Director will also conduct a periodic review to determine the effectiveness of the program.

#### V. FIRE PREVENTION AND PROTECTION

#### A. Preface

This Fire Prevention and Protection Plan has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group requires that all employees meet these requirements and all OSHA regulations.

## B. Purpose

OSHA's Fire Prevention Plan regulation, found at 29 CFR 1926.150 and 151 do not specifically require a written plan, but do require specific program elements. This plan addresses fire emergencies reasonably anticipated to occur through during field work activities.

This plan is in place at this company to control and reduce the possibility of fire and to specify the type of equipment to use in case of fire. This plan addresses the following issues:

- Major workplace / jobsite fire hazards and their proper handling and storage procedures.
- Potential ignition sources for fires and their control procedures.
- The type of fire protection equipment or systems which can control a fire involving them.
- Regular job titles of personnel responsible for maintenance of equipment and systems installed to prevent or control ignition of fires and for control of fuel source hazards.

Under this plan, our employees will be informed of the plan's purpose, preferred means of reporting fires and other emergencies, types of evacuations to be used in various emergency situations, and the alarm system.

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

## C. Project Superintendent Responsibilities

Here at Pierre Construction Group, the Project Superintendents are responsible for the following activities. They must:

- Follow the fire prevention plan during regular work hours at their jobsite.
- Immediately notify the general contractor, fire or police departments and the Safety Director in the event of a fire affecting any of the jobsites.
- Integrate the fire prevention plan with the existing general contractor emergency plan covering the jobsite.
- Communicate procedures for reporting a fire, the location of fire exits, and evacuation routes to each employee.
- Satisfy all local fire codes and regulations as specified.
- Train designated employees in the use of fire extinguishers.
- Decide to remain in or evacuate the workplace in the event of a fire.
- If evacuation is deemed necessary, the Project Superintendent ensures that:
  - All employees are notified and a head count is taken to confirm total evacuation of all employees.
  - The general contractor and Safety Director is contacted, informed of the action taken, and asked to assist in coordinating security protection.

#### D. Jobsite Fire Hazards

It is the intent of this company to assure that hazardous accumulations of combustible waste materials are controlled so that a fast developing fire, rapid spread of toxic smoke, or an explosion will not occur. Employees are to be made aware of the hazardous properties of materials in their workplaces, and the degree of hazard each poses.

Fire prevention measures must be developed for all fire hazards found. Once employees are made aware of the fire hazards in their work areas, they must be trained in the fire prevention measures developed and use them in the course of their work. Accumulations of materials which can cause large fires or generate dense smoke that are easily ignited or may start from spontaneous combustion, are the types of materials with which this fire prevention plan is concerned. Such combustible materials may be easily ignited by matches, welder's sparks, cigarettes and similar low level energy ignition sources. It is the intent of this company to prevent such accumulation of materials on jobsites.

Fuel is used throughout the jobsite as an energy source for various systems or equipment. This fuel can be a significant fire hazard and must be monitored and controlled.

#### E. Fire Prevention

Internal combustion engine powered equipment shall be so located that the exhausts are well away from combustible materials.

Smoking shall be prohibited at or in the vicinity of operations which constitute a fire hazard.

## F. Fire Protection Equipment

Fire protection equipment in use at each jobsite includes the following extinguishers to protect from the various types of fire hazards.

- A fire extinguisher, rated not less than 2A, shall be provided for each 3,000 square feet of the protected building area, or major fraction thereof. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet.
- A 1/2-inch diameter garden-type hose line, not to exceed 100 feet in length and equipped with a nozzle, may be substituted for a 2A-rated fire extinguisher, providing it is capable of discharging a minimum of 5 gallons per minute with a minimum hose stream range of 30 feet horizontally. The garden-type hose lines shall be mounted on conventional racks or reels. The number and location of hose racks or reels shall be such that at least one hose stream can be applied to all points in the area.
- Extinguishers subject to freezing shall be protected from freezing.
- Access to all available firefighting equipment shall be maintained at all times.
- All firefighting equipment shall be conspicuously located.
- All firefighting equipment shall be periodically inspected and maintained in operating condition. Defective equipment shall be immediately replaced.

#### G. Means of Egress

- No temporary building shall be erected where it will adversely affect any means of exit.
- Employees shall be familiar with closest exit routes during construction.
   Closest exit routes may change as construction progresses.
   Employees must constantly be aware or closest exit.
- No exit shall be blocked for any reason. Exit routes shall be kept clear at all times during the construction process.

## H. Maintenance of Fire Protection Equipment

Once hazards are evaluated and fire extinguishers are installed that equipment must be monitored on a regular basis to make sure it continues to function

properly. Each Project Superintendent is responsible for maintaining extinguishers. In addition, the following is required:

 Portable fire extinguishers shall be inspected periodically and maintained in accordance with Maintenance and Use of Portable Fire Extinguishers, NFPA No. 10A-1970.

## I. Training

At the time of a fire, employees should know what type of evacuation is necessary and what their role is in carrying out the plan. In cases where the fire is large, total and immediate evacuation of all employees is necessary. We must be sure that employees know what is expected of them during a fire to assure their safety.

This document is not one for which casual reading is intended or will suffice in getting the message across. If passed out as a statement to be read to oneself, some employees will choose not to read it, or will not understand the plan's importance. In addition, training on the plan's content is required by OSHA.

A better method of communicating the fire prevention plan is to give all employees a thorough briefing and demonstration. Pierre Construction Group has chosen to train employees through presentation:

Training, conducted on initial assignment, includes:

- What to do if an employee discovers a fire
- How to recognize fire exits
- Evacuation routes
- Measures to contain fire
- Head count procedures
- Return to jobsite after the "all-clear" signal

If the Project Superintendent has reason to believe an employee does not have the understanding required, the employee must be retrained. The Project Superintendent certifies that the employee has received and understands the fire prevention plan training.

Because failure to comply with company policy concerning fire prevention can result in OSHA citations and fines as well as employee personnel injury, an employee who does not comply with this program will be disciplined.

## J. Fire Prevention Equipment

The Safety Director is responsible for ensuring that each Pierre Construction Group employee is trained in the use of fire prevention equipment. Employees

shall not use fire prevention equipment without appropriate training. Training, before an individual is assigned responsibility to fight a fire, includes:

- Types of fires
- Types of fire prevention equipment
- Location of fire prevention equipment
- How to use fire prevention equipment
- Limitations of fire prevention equipment
- Proper care and maintenance of assigned fire prevention equipment and
- Employees must demonstrate an understanding of the training and the ability to use the equipment properly before they are allowed to perform work requiring the use of the equipment.

If the Project Superintendent has reason to believe an employee does not have the understanding or skill required the employee must be retrained.

#### VI. WELDING AND CUTTING PLAN

#### A. Preface

This Welding and Cutting Program has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group requires all employees to meet these requirements and all OSHA regulations.

## B. Purpose

The purpose of this Welding and Cutting Program is to demonstrate that Pierre Construction Group is in compliance with OSHA Welding and Cutting safety requirements necessary for the practical safeguarding of employees per CFR 1910.252 & 254 and establish specific written procedures to protect the health and safety of all employees.

A written description of the program, including the specific procedures adopted by Pierre Construction Group, is available at the Corporate Office.

#### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to the Safety Director.

#### D. Training

It is the policy of Pierre Construction Group to permit only trained and authorized personnel to operate welding and cutting equipment. Each project superintendent will identify all new employees in the employee orientation program and make arrangements to schedule training for required employees.

The Warehouse Supervisor is responsible for coordinating training and employee evaluation. This instructor(s) chosen by Pierre Construction Group to train workers in welding and cutting safety requirements will have the necessary knowledge, training, and experience to train new welding and cutting equipment operators.

## E. Initial Training

During training, Pierre Construction Group covers the operational hazards of our welding and cutting operations, including:

- Hazards associated with the particular make and model of the welding and cutting equipment;
- Hazards of the workplace; and
- General hazards that apply to the operation of all or most welding and cutting equipment.

Each potential welder or cutter who has received training in any of the elements of our training program for the types of equipment which that personnel will be authorized to operate and for the type of workplace in which the welding and cutting equipment will be operated need not be retrained in those elements before initial assignment in our workplace if Pierre Construction Group has written documentation of the training and if the personnel is evaluated to be competent.

# F. Training Certification

After an employee has completed the training program, the instructor will determine whether the potential welder or cutter can safely perform the job. At this point, the trainee will take a performance test or practical exercise through which the instructor(s) will decide if the training has been adequate. All welding and cutting trainees are tested on the equipment they will be operating.

The Warehouse Supervisor is responsible for certifying each employee who has successfully completed training and testing. Each certificate includes the name of the employee, the date(s) of the training, and the signature of the person who did the training and evaluation.

### G. Performance Evaluation

Each certified welder or cutter is evaluated to verify that the welder or cutter has retained and uses the knowledge and skills needed to operate safely. If the evaluation shows that the welder or cutter is lacking the appropriate skills and knowledge, the welder or cutter is retrained by our instructor(s). When a welder or cutter has an incident or near miss or some unsafe operating procedure is identified, we do retraining.

### H. Current Welders and Cutters

Under no circumstances may an employee operate welding or cutting equipment until they have successfully completed this company's welding and cutting training program. This includes all new welders and cutters regardless of claimed previous experience.

# I. Operating Procedures

Welding and cutting can create certain hazards that only safe work practices can prevent. That's why we have created a set of operating procedures. Our operating procedures follow:

# J. Compressed Gas Cylinders

Approved practices include:

- Keep valve protection cap in place at all times when a cylinder is not in use.
- Use care in handling and storage of cylinders, safety valves, relief valves, etc., to prevent damage.
- When cylinders are hoisted, secure them on a cradle, slingboard, or pallet.
- Move cylinders by tilting and rolling them on their bottom edges. Care in handling is required.
- Secure cylinders in an upright position at all times, especially when moving them by machine.
- Use carriers or carts provided for the purpose when cylinders are in use.
- When in use, isolate cylinders from welding or cutting or suitably shield them.
- Care will be taken to prevent them from becoming part of an electrical circuit.
- Maintain a distance of at least 20 feet or provide a non-combustible barrier at least five feet high in separating fuel gas cylinders from oxygen cylinders. This applies to indoor and outdoor storage.

The superintendent will designate well-ventilated storage areas for cylinders.

- Care will be taken to keep storage areas out of traffic areas or other situations where they could be knocked over, damaged, or tampered with.
- Locations for fuel gas and oxygen manifolds in well-ventilated areas.
- Before a regulator is removed, check that the valve is closed and the gas released from the regulator.
- Keep cylinders, cylinder valves, couplings, regulators, hoses, and apparatus free of oily or greasy substances.
- Keep empty compressed gas cylinders appropriately marked and their valves closed.
- Store full and empty cylinders apart.

- Group cylinders by types of gas.
- Use old stock before newer stock.

## Prohibited practices include:

- Use of valve protection caps for lifting cylinders.
- Use of damaged or defective cylinders. The Superintendent will provide appropriate tags and designate an appropriate storage area for these cylinders.
- Use of a wrench or hammer to open cylinder valves.
- Attempting to repair a cylinder valve. The supplier should be contacted.
- No Mixing of gases.
- Use of a magnet or choker sling when hoisting cylinders.
- Use of a bar to pry cylinders from frozen ground. Warm, not boiling, water is used to thaw cylinders.
- Taking oxygen, acetylene, or other fuel gas or manifolds with these gases into confined spaces.
- Storing cylinders near elevators, stairs, or gangways.
- Using cylinders as rollers or supports.

# K. Gas Welding and Cutting

Safe practices in using compressed gases and torches include:

- Cracking cylinders and attaching regulators according to industry practice.
- Putting caps on header hose connections and manifolds when not in use.
- Keeping all hoses, regulators, cylinders, valve protection caps, couplings, apparatus, and torch connections free of grease and oil, especially those involving oxygen.
- Using fuel gas hose and oxygen hose of different colors.
- Inspections:
  - All hoses before every shift.
  - All torches. Only devices designed for the purpose will be used to clean torch tips.
- Use only friction lighters to ignite torches.

 Removal of torches and hoses and positive shut-off of gas sources from confined spaces when leaving a confined space project for any substantial period of time.

## Prohibited practices include:

- Interchange of hoses, including use of adapters, between fuel gas and oxygen sources.
- Placement of anything on or near a manifold or cylinder top that may interfere with the prompt shut-off in case of an emergency.
- Taping more than four inches out of every 12 inches in joining fuel gas and oxygen hoses.
- Using defective hose or torches.
- Use of oxygen for personal cooling, cleaning off of surfaces, ventilation or blowing dust from clothing.

## L. Arc Welding and Cutting

Safe practices in using arc welders include:

- Use of holders, cable, and other apparatus specifically designed for the purpose, matched to the job and other components and in good repair.
- When leaving electrode holders unattended, electrodes are removed and holders placed so that incidental electrical contact is not made.
- Turning off the arc welding or cutting machine when it is to be left unattended for a substantial period of time or when it is being moved.
- Immediate reporting of any defective equipment to the Warehouse Supervisor.

## Prohibited practices include:

- Using cables with repairs or splices within 10 feet of the holder that are not equivalent in insulating value to the original cable.
- Dipping hot electrode holders into water.

#### M. Fire Prevention

The Warehouse Supervisor will use this guide to assess fire hazards:

- When the object to be welded cut or heated can be moved, and a fireresistant, safe workspace is available, then the welding, cutting, brazing, or heating must be done in that space.
- When the object to be welded, cut, or heated can be moved, and all fire hazards can be moved to a safe distance, then the welding, cutting, brazing or heating can be done.

- When the object to be welded, cut, or heated cannot be moved, and all
  the fire hazards cannot be removed, then guards shall be used to
  confine the heat, sparks, and slag, and to protect the immovable fire
  hazards.
- When there is a welding, cutting, or heating task, and concentrations of flammable paints, dusts, or other flammable compounds are present, and then welding, cutting, brazing or heating is not allowed.

All employees will be required to:

- Wear flame-resistant clothing.
- Have a firewatcher in attendance when they are welding.
- Remove all combustible material at least 35 feet from the work area and to move away from combustible materials or cover combustibles with fire resistant material.
- Not weld in atmospheres containing dangerously reactive or flammable gases, vapors, liquid, or dust.
- Clean and purge containers, which may have held combustible material before applying heat.

Pierre Construction Group will provide suitable fire extinguishing equipment in the Warehouse. The Warehouse Supervisor will ensure the equipment is maintained for immediate use.

### N. Fire Watchers

When normal fire prevention measures are not sufficient, Pierre Construction Group, based on the Warehouse Supervisors assessment, assigns firewatchers. Firewatchers will provide additional safeguards against fire during and after operations.

#### O. Ventilation

The Warehouse Supervisor will determine the number, location, and capacity of ventilation devices. Where ventilation is not sufficient to provide clean, respirable air, respirators will be specified according to the provisions in the Personal Protective Equipment section. Ventilation will be sufficient to protect passersby as well as the welder.

Employees will be required to:

- Know the symptoms of fumes and gases and get out of the area if they should develop.
- · Perform atmospheric tests.

# P. Personal Protective Equipment

When known or unknown toxic materials are present in a job, respirators will be provided that match the hazard for all employees. The hazards include zinc or zinc-bearing base or filler metals, lead base metals, cadmium-bearing filler metals, chromium-bearing or chromium-coated metals, mercury, nitrogen dioxide, and beryllium. Due to beryllium's extreme danger, both ventilation and airline respirators will be used

Where screens are not sufficient to protect welders and passersby from arc radiation, Pierre Construction Group will provide eye protection with appropriate helmets, ANSI approved filter lens goggles, or hand shields. The helmets and shields will be maintained in good repair.

## Q. Electrical Equipment

Approved safe practices include:

- Do not arc weld while standing on damp surfaces or in damp clothing.
- Properly ground, install, and operate equipment.
- Do not use defective equipment.
- Use well-insulated electrode holders and cables.
- Insulate yourself from both the work and the metal electrode and holder.
- Don't wrap a welding cable around your body.
- Wear dry gloves and rubber-soled shoes.
- Do not use damaged or bare cables and connectors.
- In case of electric shock, don't touch a victim. Turn off the current at the control box and then call for help. After the power is off, you may perform cardiopulmonary resuscitation (CPR) if necessary.

#### R. Fall Protection

A platform with railings, or safety harness and lifeline will be used when welding or cutting above 6 feet at all times.

A clear welding or cutting area will be maintained to prevent slips, trips, and falls.

# S. Inspections

A number of inspections are required under the welding and cutting regulations. To make inspections efficient, we have compiled a list of inspection items to be checked before welding or cutting:

### T. Gas welding and cutting

- All hose in use, carrying acetylene or oxygen fuel gas, or any gas or substance which may ignite or enter into combustion, or be in any way harmful to employees shall be inspected at the beginning of each working shift. Defective hose shall be removed from service.
- Torches in use shall be inspected at the beginning of each working shift for leaking shutoff valves, hose couplings, and tip connections.
   Defective torches shall not be used.

# U. Arc welding and cutting

- The frames of all arc welding and cutting machines shall be grounded either through a third wire in the cable containing the circuit conductor or through a separate wire which is grounded at the source of the current. Grounding circuits, other than by means of the structure, shall be checked to ensure that the circuit between the ground and the grounded power conductor has resistance low enough to permit sufficient current to flow to cause the fuse or circuit breaker to interrupt the current.
- All ground connections shall be inspected to ensure that they are mechanically strong and electrically adequate for the required current.

### V. Maintenance

Any deficiencies found in welding and cutting equipment are repaired, or defective parts replaced, before continued use. However, no modifications or additions that affect the capacity or safe operation of the equipment may be made without the manufacturer's written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals, must be changed accordingly. In no case may the original safety factor of the equipment be reduced.

While defective parts may be found, we prefer to invest time and effort into the proper upkeep of our equipment, which results in day-to-day reliability. Keeping up with the manufacturer's recommended maintenance schedules, and completing the proper records, will also increase our welding and cutting equipment's longevity.

Periodic maintenance (those completed monthly or less frequently) is done by a factory-trained-expert, or a dealer.

## W. Signs and Labels

Pierre Construction Group requires the posting of signs as follows:

### 1. Gas welding and cutting

If, when the valve on a fuel gas cylinder is opened, there is found to be a leak around the valve stem, the valve shall be closed and the gland nut

tightened. If this action does not stop the leak, the use of the cylinder shall be discontinued, and it shall be properly tagged and removed from the work area. In the event that fuel gas should leak from the cylinder valve, rather than from the valve stem, and the gas cannot be shut off, the cylinder shall be properly tagged and removed from the work area. If a regulator attached to a cylinder valve will effectively stop a leak through the valve seat, the cylinder need not be removed from the work area.

# 2. Fuel gas and oxygen manifolds.

Fuel gas and oxygen manifolds shall bear the name of the substance they contain in letters at least 1-inch high which shall be either painted on the manifold or on a sign permanently attached to it.

## 3. Recordkeeping

The Safety Director and the Warehouse Supervisor are responsible for maintaining the training, maintenance and inspection records for any Cutting and Welding performed by Pierre Construction Group employees. These records are maintained in Corporate Office for 3 years.

# X. Inspections

A number of inspections are required under the welding and cutting regulations. To make inspections efficient, we have compiled a list of inspection items to be checked before welding or cutting:

WELDING/CUTTING OPERATIONS						
Contract Name and Number:	Contractor/Subcontractor:					
Government Inspector:	Location:					
Contractor Inspector:	Date:					
		Yes	No	N/A		
Is a compatible fire extinguisher immediately available? (10.C.01)						
Are combustible materials screened fro	m slag, heat and sparks?					

(10.C.02b)	
Are workers and the public shielded from rays, flashes, sparks, molten metal and slag? (10.A.04)	
<ol> <li>Are passageways, ladders, steps, etc. kept clear of hoses or cables? (10.A.05)</li> </ol>	
<ol> <li>Is the electric welding unit shutdown when leads are unattended? (10.E.11)</li> </ol>	
Are the frames of arc welding and cutting machines grounded?     (10.E.04)	
7. Are cables free of splices or repaired insulation within 10 feet of the rod holder? (10.E.03b)	
Have welding leads been checked to ensure there is no contact with the metal parts which support suspended scaffolds? (10.E.09)	
Are all torch valves and gas supply shut off when work is suspended? (10.D.05)	
<ol> <li>When work is suspended; are hoses, torch, etc., removed from confined spaces? Tanks are prohibited in confined spaces. (10.D.06)</li> </ol>	
11. When cylinders are stored, in transit, or the regulator is not in place, are the valves protected by caps? (20.D.07b)	
<ol> <li>Are all compressed gas cylinders secured upright at all times, except when being hoisted? (20.D.10) (Acetylene shall never be laid horizontal).</li> </ol>	
13. Are upright cylinders secured in racks or hand trucks? (20.D.08)	
14. Are cylinders stored in well ventilated locations, segregated by gas type, and away from flammable and combustible materials? (20.D.03a-c)	
15. Are oxygen cylinders in storage and fuel gases separated by a fire resistive wall or by a distance of 20 feet? (20.D.03d)	
16. Are "No Smoking" signs posted around cylinder storage area? (20.D.03e and 20.D.04)	

Have oxyfuel gas or other gas-oxygen cutting or welding systems been equipped with reverse-flow check valves between torch and the regulator? (10.D.07a)		
18. Is a pressure gauge provided on all pressurized equipment and systems? (20.A.12)		
Comments:		

### Y. Maintenance

Any deficiencies found in our welding and cutting equipment are repaired, or defective parts replaced, before continued use. However, no modifications or additions that affect the capacity or safe operation of the equipment may be made without the manufacturer's written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals, must be changed accordingly. In no case may the original safety factor of the equipment be reduced.

While defective parts may be found, we prefer to invest time and effort into the proper upkeep of our equipment, which results in day-to-day reliability. Keeping up with the manufacturer's recommended maintenance schedules, and completing the proper records, will also increase

### VII. ELECTRICAL SAFETY PROGRAM

### A. Preface

This Electrical Program has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group requires all employees to meet these requirements and all OSHA regulations.

# B. Purpose

The purpose of this Electrical Program is to demonstrate that Pierre Construction Group is in compliance with OSHA electrical safety requirements necessary for the practical safeguarding of employees involved in construction work, found in Subpart K of 29 CFR 1926 and 1910 SUBPART S and establish specific written procedures to protect the health and safety of all employees.

#### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. Employees may review a copy of this plan at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

### D. Equipment Grounding Conductor Program

This written plan is intended to establish and implement specific procedures for equipment grounding conductor program covering:

- All cord sets
- Receptacles which are not a part of the building or structure, and temporary power installations
- Equipment connected by cord and plug which are available for use or used by employees.
- These requirements apply to all of Pierre Construction Group job sites.
   This part of the written plan complies with the requirements of 1926.404(b) (1) (iii).

## E. Equipment Grounding Conductor Inspection

Each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, except cord sets and receptacles which

are fixed and not exposed to damage, are visually inspected by each employee and/or their immediate supervisor before each day's use for:

- External defects, such as deformed or missing pins or insulation damage
- Indications of possible internal damage
- Grounding path. The path to ground from circuits, equipment, and enclosures shall be permanent and continuous.

Equipment found damaged or defective is not to be used until repaired, and is to be removed from service immediately by the person finding it and handed over to the site superintendent.

# F. Equipment Grounding Conductor Testing

The following tests are performed on all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and cord- and plug-connected equipment required to be grounded:

- All equipment-grounding conductors are tested for continuity and are electrically continuous.
- Each receptacle and attachment cap or plug is inspected by the site superintendent for correct attachment of the equipment-grounding conductor. The equipment-grounding conductor is connected to its proper terminal.

All required tests are performed:

- Before first use
- Before equipment is returned to service following any repairs
- Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over)
- At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage will be tested at intervals not exceeding 6 months
- Pierre Construction Group does not provide or permit employees to use any equipment which has not met the requirements of this program.

### G. Ground Fault Circuit Interrupters (GFCI)

Ground-fault circuit interrupters. All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and which are in use by employees shall have approved ground-fault circuit interrupters for personnel protection. Receptacles

on a two-wire, single-phase portable or vehicle-mounted generator rated not more than 5kW, where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with ground-fault circuit interrupters.

# H. Lockout and Tagging of Circuits

This portion of the plan has been created to maintain a written copy of procedures to be followed during work on or near enough to exposed deenergized parts of conductors and electric equipment to expose employees to any electrical hazard they present. The requirements apply to all of Pierre Construction Group job sites and warehouse operations.

This written procedure includes procedural steps for each one of the following:

- De-energizing equipment,
- Application of locks and tags,
- Verification of de-energized condition, and
- Re-energizing equipment.

While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been de-energized, the circuits energizing the parts will be locked out or tagged or both according to the requirements of this written plan.

Conductors and parts of electric equipment that have been de-energized but have not been locked out or tagged according to these procedures will be treated as energized parts.

The requirements must be followed in the order in which they are presented. Pierre Construction Group maintains this written copy of procedures at their corporate office and all jobsite offices and makes it available for inspection by employees and the Assistant Secretary of Labor and his or her authorized representatives.

# I. Lockout and Tagging of Circuits

Safe procedures for de-energizing circuits and equipment will be determined by qualified electrician before circuits or equipment is de-energized.

The circuits and equipment to be worked on will be disconnected from all electric energy sources. Control circuit devices, such as push buttons, selector switches, and interlocks, may not be used as the sole means for de-energizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures.

Stored electric energy which might endanger personnel will be released. Capacitors will be discharged and high capacitance elements will be short-circuited and grounded, if the stored electric energy might endanger personnel.

If the capacitors or associated equipment are handled in meeting this requirement, they will be treated as energized.

Stored non-electrical energy in devices that could re-energize electric circuit parts will be blocked or relieved to the extent that the circuit parts could not be incidentally energized by the device.

# J. Application of Locks and Tags

A lock and a tag will be placed on each disconnecting means used to deenergize circuits and equipment on which work is to be performed. Employees can obtain these locks and tags from Pierre Construction Group.

The lock will be attached so it prevents persons from operating the disconnecting means unless they resort to undue force or the use of tools.

Each tag will contain a statement prohibiting unauthorized operation the disconnecting means and removal of the tag. If a lock cannot be applied or if Pierre Construction Group can demonstrate that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock, a tag may be used without a lock.

If a tag is used without a lock, the tag will be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by the use of a lock. Examples of additional safety measures include the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.

A lock may be placed without a tag only under the following conditions:

- Only one circuit or piece of equipment is de-energized, and
- The lockout period does not extend beyond the work shift, and
- Employees exposed to the hazards associated with re-energizing the circuit or equipment are familiar with this procedure.

# K. Verification of De-Energized Condition

The following requirements must be met before any circuits or equipment can be considered and worked as de-energized:

 A qualified person will operate the equipment operating controls or otherwise verify that the equipment cannot be restarted. • A qualified person will use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and will verify that the circuit elements and equipment parts are deenergized. The test will also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been de-energized and presumed to be safe. If the circuit to be tested is over 600 volts, nominal, the test equipment will be checked for proper operation immediately before and immediately after this test.

# L. Re-Energizing Equipment

The following requirements will be met, in order given, before circuits or equipment is re-energized, even temporarily:

- A qualified person will conduct tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized.
- Employees exposed to the hazards associated with re-energizing the circuit or equipment will be warned to stay clear of circuits and equipment.
- Each lock and tag will be removed by the employee who applied it or under his or her direct supervision. However, if this employee is absent from the workplace, then the lock or tag may be removed by a qualified person designated to perform this task provided that the employee who applied the lock or tag is not available at the workplace, and the employee is aware that the lock or tag has been removed before they resumes work at that workplace.
- There will be a visual determination that all employees are clear of the circuits and equipment.

### M. General Requirements

- Flexible cords and cables shall be protected from damage. Sharp corners and projections shall be avoided. Flexible cords and cables may pass through doorways or other pinch points, if protection is provided to avoid damage.
- Extension cord sets used with portable electric tools and appliances shall be of three-wire type and shall be designed for hard or extra-hard usage. Flexible cords used with temporary and portable lights shall be designed for hard or extra-hard usage.
- Covers and canopies. All pull boxes, junction boxes, and fittings shall be provided with covers. If metal covers are used, they shall be grounded. In energized installations each outlet box shall have a cover,

faceplate, or fixture canopy. Covers of outlet boxes having holes through which flexible cord pendants pass shall be provided with bushings designed for the purpose or shall have smooth, well-rounded surfaces on which the cords may bear.

- Splices. Flexible cords shall be used only in continuous lengths without splice or tap. Hard service flexible cords No. 12 or larger may be repaired if spliced so that the splice retains the insulation, outer sheath properties, and usage characteristics of the cord being spliced.
- Strain relief. Flexible cords shall be connected to devices and fittings so that strain relief is provided which will prevent pull from being directly transmitted to joints or terminal screws.
- Cords passing through holes. Flexible cords and cables shall be protected by bushings or fittings where passing through holes in covers, outlet boxes, or similar enclosures.

## N. Training

Training is provided to ensure that employees are familiar with the requirements of this plan. This training is provided to Pierre Construction Group employees on a yearly basis. The Safety Director is responsible for scheduling training.

The training program addresses the required written elements for electrical safety for:

- The assured equipment grounding conductor program.
- Lockout and tagging procedures to be used when working on exposed de-energized parts.

## O. Program Evaluation

The Electrical Safety Plan is evaluated and updated by The Safety Director to ensure the continued effectiveness of the program.

### VIII. SCAFFOLDING AND AERIAL LIFTS

#### A. Preface

This Scaffold Procedures Plan has been written as a general guide for Pierre Construction Group employees. Occasionally other trades perform scaffold erection and dismantlement. With the permission of the scaffold owner, Pierre Construction Group employees may use a scaffold to gain access to a work area.

## B. Purpose

It is Pierre Construction Group purpose in issuing these procedures to further ensure a safe workplace based on the following formal, written procedures for scaffold work. These procedures will be reviewed and updated as needed to comply with new OSHA regulations, new best practices in scaffolding, and as business practices demand.

### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

## D. Capacity

Each scaffold and scaffold component Pierre Construction Group use will support, without failure, its own weight and at least four times the maximum intended load applied or transmitted to it.

### E. Platform Construction

This section documents the procedures and safety requirements Pierre Construction Group will use to construct our scaffold platforms. Each platform on all working levels of scaffolds will be fully planked or decked between the front uprights and the guardrail supports as follows:

Each platform unit (e.g., scaffold plank, fabricated plank, fabricated deck, or fabricated platform) will be installed so that the space between adjacent units and the space between the platform and the uprights is no more than 1 inch wide, except where Pierre Construction Group can demonstrate that a wider space is necessary (for example, to fit around

- uprights when side brackets are used to extend the width of the platform).
- The platform will be planked or decked as fully as possible and the remaining open space between the platform and the uprights will not exceed 9 1/2 inches.
- Each scaffold platform and walkway will be at least 18 inches wide.
   Where scaffolds must be used in areas that are so narrow that platforms and walkways cannot be at least 18 inches (46 cm) wide, such platforms and walkways will be as wide as feasible, and personnel on those platforms and walkways will be protected from fall hazards by the use of guardrails and/or personal fall arrest systems.
- The front edge of all platforms will not be more than 14 inches from the face of the work, unless guardrail systems are erected along the front edge and/or personal fall arrest systems are used to protect personnel from falling.
- Each end of a platform unless cleated or otherwise restrained by hooks or equivalent means, will extend over the centerline of its support at least 6 inches.
- Each end of a platform 10 feet or less in length will not extend over its support more than 12 inches unless the platform is designed and installed so that the cantilevered portion of the platform is able to support personnel and/or materials without tipping, or has guardrails which block personnel access to the cantilevered end.
- Each platform greater than 10 feet in length will not extend over its support more than 18 inches, unless it is designed and installed so that the cantilevered portion of the platform is able to support personnel without tipping, or has guardrails which block personnel access to the cantilevered end.
- On scaffolds where platforms are overlapped to create a long platform, the overlap will occur only over supports, and will not be less than 12 inches unless the platforms are nailed together or otherwise restrained to prevent movement.
- At all points of a scaffold where the platform changes direction, such as turning a corner, any platform that rests on a bearer at an angle other than a right angle will be laid first, and platforms which rest at right angles over the same bearer will be laid second, on top of the first platform.
- Wood platforms will not be covered with opaque finishes, except that
  platform edges may be covered or marked for identification. Platforms
  may be coated periodically with wood preservatives, fire-retardant
  finishes, and slip-resistant finishes; however, the coating may not
  obscure the top or bottom wood surfaces.

 Scaffold components manufactured by different manufacturers will not be intermixed unless the components fit together without force and the scaffold's structural integrity is maintained by the user. Scaffold components manufactured by different manufacturers will not be modified in order to intermix them unless a competent person determines the resulting scaffold is structurally sound.

# F. Guys, Ties, and Braces

This section documents the procedures and safety requirements Pierre Construction Group will use to ensure that each scaffold is adequately braced to ensure stability.

- Supported scaffolds with a height to base width (including outrigger supports, if used) ratio of more than four to one (4:1) will be restrained from tipping by guying, tying, bracing, or equivalent means, as follows:
  - Guys, ties, and braces will be installed at locations where horizontal members support both inner and outer legs.
  - Guys, ties, and braces will be installed according to the scaffold manufacturer's recommendations or at the closest horizontal member to the 4:1 height and be repeated vertically at locations of horizontal members every 20 feet or less thereafter for scaffolds 3 feet wide or less, and every 26 feet or less thereafter for scaffolds greater than 3 feet wide. The top guy, tie or brace of completed scaffolds will be placed no further than the 4:1 height from the top. Such guys, ties and braces will be installed at each end of the scaffold and at horizontal intervals not to exceed 30 feet (measured from one end [not both] towards the other).

#### G. Stable Ground

This section documents the procedures and safety requirements Pierre Construction Group will use to ensure that each scaffold is erected on stable ground.

- Footings will be level, sound, rigid, and capable of supporting the loaded scaffold without settling or displacement.
- Unstable objects will not be used to support scaffolds or platform units.
- Unstable objects will not be used as working platforms.
- Front-end loaders and similar pieces of equipment will not be used to support scaffold platforms unless they have been specifically designed by the manufacturer for such use.
- Supported scaffold poles, legs, posts, frames, and uprights will be plumb and braced to prevent swaying and displacement.

# H. Gaining Access to Scaffolds

Pierre Construction Group knows that getting to the working platform is critical to the safety of personnel. This section outlines the mechanical requirements for gaining access to scaffold platforms.

- When scaffold platforms are more than 2 feet above or below a point of access, portable ladders, hook-on ladders, attachable ladders, stair towers (scaffold stairways/towers), stairway-type ladders (such as ladder stands), ramps, walkways, integral prefabricated scaffold access, or direct access from another scaffold, structure, personnel hoist, or similar surface will be used.
- Cross braces will not be used as a means of access.
- Portable, hook-on and attachable ladders.
- Portable, hook-on, and attachable ladders will be positioned so as not to tip the scaffold.
- Hook-on and attachable ladders will be positioned so that their bottom rung is not more than 24 inches above the scaffold supporting level.
- When hook-on and attachable ladders are used on a supported scaffold more than 35 feet high, they will have rest platforms at 35-foot maximum vertical intervals.
- Hook-on and attachable ladders will be specifically designed for use with the type of scaffold used.
- Hook-on and attachable ladders will have a minimum rung length of 11 1/2 inches.
- Hook-on and attachable ladders will have uniformly spaced rungs with a maximum spacing between rungs of 16 3/4 inches.

### I. Fall Protection Plan

Fall protection planning is critical to the safety and well being of personnel working on scaffolds. Our fall protection plan follows the OSHA requirements which are different depending on the type of scaffold we are using.

- Each personnel on a scaffold more than 10 feet above a lower level will be protected from falling to that lower level.
- Each personnel on a walkway located within a scaffold will be protected by a guardrail system (with minimum 200 pound toprail capacity) installed within 9 1/2 inches of and along at least one side of the walkway.

- Guardrail systems will be installed along all open sides and ends of platforms. Guardrail systems will be installed before the scaffold is released for use by personnel other than erection/dismantling crews.
- The top edge height of toprails or equivalent member on supported scaffolds manufactured or placed in service after January 1, 2000 will be installed between 38 inches and 45 inches above the platform surface.
- When midrails are used, they will be installed at a height approximately midway between the top edge of the guardrail system and the platform surface and along the entire opening between the supports.
- When midrails, screens, mesh, intermediate vertical members, solid panels, or equivalent structural members are used, they will be installed between the top edge of the guardrail system and the scaffold platform.
- When intermediate members (such as balusters or additional rails) are used, they will not be more than 19 inches apart.
- Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members of a guardrail system will be capable of withstanding, without failure, a force applied in any downward or horizontal direction at any point along the midrail or other member of at least 150 pounds (666 n) for guardrail systems with a minimum 200 pound toprail capacity.
- Guardrails will be surfaced to prevent injury to an personnel from punctures or lacerations, and to prevent snagging of clothing.
- The ends of all rails will not overhang the terminal posts except when such overhang does not constitute a projection hazard to personnel.
- Steel or plastic banding will not be used as a toprail or midrail.
- Manila or plastic (or other synthetic) rope being used for toprails or midrails will be inspected by a competent person as frequently as necessary to ensure that it continues to meet the strength requirements.
- Cross bracing is acceptable in place of a midrail when the crossing point of two braces is between 20 inches and 30 inches above the work platform or as a toprail when the crossing point of two braces is between 38 inches and 48 inches above the work platform. The end points at each upright will be no more than 48 inches apart.
- When vertical lifelines are used, they will be fastened to a fixed safe point of anchorage, will be independent of the scaffold, and will be protected from sharp edges and abrasion. Safe points of anchorage include structural members of buildings, but do not include standpipes, vents, other piping systems, electrical conduit, outrigger beams, or counterweights.

## J. Falling Object Protection

In addition to wearing hardhats each personnel on a scaffold will be provided with additional protection from falling hand tools, debris, and other small objects through the installation of toeboards, screens, or guardrail systems, or through the erection of debris nets, catch platforms, or canopy structures that contain or deflect the falling objects. When the falling objects are too large, heavy or massive to be contained or deflected by any of the above-listed measures, Pierre Construction Group will place such potential falling objects away from the edge of the surface from which they could fall and will secure those materials as necessary to prevent their falling.

Where there is a danger of tools, materials, or equipment falling from a scaffold and striking personnel below, the following provisions will apply:

- The area below the scaffold to which objects can fall will be barricaded, and personnel will not be permitted to enter the hazard area; or
- A toeboard will be erected along the edge of platforms more than 10 feet above lower levels for a distance sufficient to protect employees below.
- Where tools, materials, or equipment are piled to a height higher than
  the top edge of the toeboard, paneling or screening extending from the
  toeboard or platform to the top of the guardrail will be erected for a
  distance sufficient to protect employees below; or
- A guardrail system will be installed with openings small enough to prevent passage of potential falling objects; or
- A canopy structure, debris net, or catch platform strong enough to withstand the impact forces of the potential falling objects will be erected over the employees below.

## K. Using Scaffolds

Site preparation, scaffold erection, fall protection, and gaining access to the working platform is only part of the requirements for scaffold work. While this all takes concentration and safe work practices, the most dangerous time can be when employees are concentrating on their work and not particularly aware of the hazards of working from scaffolds. It is critical that personnel who use scaffolds be trained, among other things, in the recognition of the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. The competent person will inspect all scaffolds and scaffold components for visible defects before each work shift, and after any occurrence which could affect a scaffold's structural integrity. However, in addition to that, all users of scaffolds will know and understand the following safety rules:

- Scaffolds and scaffold components will never be loaded in excess of their maximum intended loads or rated capacities.
- Debris must not be allowed to accumulate on platforms.
- Personnel will be prohibited from working on scaffolds covered with snow, ice, or other slippery material except as necessary for removal of such materials.
- Makeshift devices, such as but not limited to boxes and barrels, will not be used on top of scaffold platforms to increase the working level height of personnel.

## L. Training

Recognizing the need for training for personnel who: (1) perform work while on scaffolds, (2) inspecting scaffolds, and (3) have lost the requisite proficiency, the following training syllabus is a part of this written safety plan.

### Personnel Who Use Scaffolds:

- Personnel who perform work on scaffolds will be trained by a qualified person to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. The training will include the following areas as applicable:
  - The nature of and the correct procedures for dealing with electrical hazards.
  - The nature of and the correct procedures for erecting, maintaining, and disassembling the fall protection and falling object protection systems used.
  - The proper use of the scaffold, and the proper handling of materials on the scaffold.
  - The maximum intended load and the load-carrying capacities of the scaffolds used.
  - Any other pertinent requirements of the OSHA rules.
  - Personnel Who Inspect Scaffolds:
  - Personnel who inspect scaffolds will be trained by our competent person to recognize the hazards associated with the work being done. The training will include the following topics as applicable:
- The nature of scaffold hazards.
- The correct procedures for inspecting the type of scaffold in question.

- The design criteria, maximum intended load-carrying capacity, and intended use of the scaffold.
- Any other pertinent requirements of this subpart.

## Personnel Who Need Retraining:

When Pierre Construction Group has reason to believe that personnel lacks the skill or understanding needed for safe work involving the use of scaffolds, we will require that the personnel be retrained so that the requisite proficiency is regained. Retraining will be done in at least the following situations:

- Where changes at the worksite present a hazard about which the personnel has not been previously trained.
- Where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard about which an employee has not been previously trained.
- Where inadequacies in an affected personnel's work involving scaffolds indicate that the personnel has not retained the requisite proficiency.

#### M. Aerial Lifts

Anytime aerial lifts, including: (1) extensible boom platforms, (2) articulating boom platforms, (3) vertical towers, or (4) a combination of any such devices, are used to elevate personnel to job-sites above ground, the following safety rules will apply:

- No aerial lift or uses will be 'field modified' for uses other than those intended by the manufacturer unless: (1) the manufacturer certifies the modification in writing, or (2) any other equivalent entity, such as a nationally recognized testing lab, certifies the aerial lift modification conforms to all applicable provisions of ANSI A92.2-1969, and the OSHA rules at 1926.453. The lift must be at least as safe as the equipment was before modification.
- Aerial lifts may be "field modified" for uses other than those intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory, to be in conformity with all applicable provisions of ANSI A92.2-1969 and this section and to be at least as safe as the equipment was before modification.
- Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted.
- Personnel shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.

- A personal fall arrest system shall be worn and a lanyard attached to the boom or basket when working from an aerial lift.
- Boom and basket load limits specified by the manufacturer shall not be exceeded
- Articulating boom and extensible boom platforms, primarily designed as
  personnel carriers, shall have both platform (upper) and lower controls.
  Upper controls shall be in or beside the platform within easy reach of
  the operator. Lower controls shall provide for overriding the upper
  controls. Controls shall be plainly marked as to their function. Lower
  level controls shall not be operated unless permission has been
  obtained from the personnel in the lift, except in case of emergency.
- Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.
- Only authorized persons shall operate an aerial lift.

## IX. FALL PROTECTION PLAN

### A. Preface

This Fall Protection Plan has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group requires all employees to meet these requirements and all OSHA regulations.

## B. Purpose

OSHA currently regulates fall protection for construction under Part 1926, Subpart M. The standards for regulating fall protection systems and procedures are intended to prevent personnel from falling off, onto or through working levels and to protect employees from falling objects. Fall protection requirements under the OSHA Construction regulations require considerable planning and preparation.

Written fall protection procedures establish guidelines to be followed whenever personnel work above dangerous equipment, on ramps or runways, or at heights over 6 feet. The regulations:

- Are designed to provide a safe working environment, and
- Govern use of fall protection procedures and equipment

Written procedures for fall protection establish uniform requirements for fall protection training, operation, and practices. The effectiveness of the written fall protection procedures depends on the active support and involvement of all personnel who perform the jobs requiring it. This plan is intended to document procedures that ensure all work requiring fall protection is carried out safely.

This fall protection plan applies to all personnel who might be exposed to fall hazards, except when designated personnel are inspecting, investigating, or assessing workplace conditions before the actual start of construction work or after all construction work has been completed.

#### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

## D. Our Duty to Provide Fall Protection

To prevent falls Pierre Construction Group has a duty to anticipate the need to work at heights and to plan work activities accordingly. Careful planning and preparation lay the necessary groundwork for an incident-free jobsite.

## E. Worksite Assessment and Fall Protection System Selection

This written plan is for all Pierre Construction Group sites. All Pierre Construction Group worksites require fall protection.

This fall protection plan is intended to anticipate the particular fall hazards to which our employees may be exposed. Specifically, Pierre Construction Group performs the following worksite assessment:

- Inspect areas to determine what fall hazards exist or may arise during the work
- Identify the fall hazards and select the appropriate measures and equipment
- Give specific and appropriate instructions to workers to prevent exposure to unsafe fall conditions
- Ensure employees follow procedures given and understand fall protection training provided

Providing fall protection requires an assessment of each fall situation at a given jobsite. Our criteria for selecting a given fall protection system follow those established at 29 CFR 1926.502, fall protection systems criteria and practices. Each employee exposed to these situations must be trained

## F. Unprotected Edges or Sides

Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet or more above a lower level will be protected from falling by the use of guardrail systems or personal fall arrest systems.

## G. Leading Edge Work

Leading edges are defined as the edge of a floor or roof that changes location as additional floor or roof sections are placed or constructed. If work stops on a leading edge it will be considered to be an "unprotected side or edge" and will be covered by the section of this plan on unprotected sides and edges.

Pierre Construction Group personnel who are involved in leading edge work will be protected from a fall by use of a personnel fall arrest system. Employees who are not constructing the leading edge, but who are on walking/working surfaces where leading edges are under construction, are also protected from a fall by guardrails or a personal fall arrest system.

#### H. Hoist Areas

In all situations where equipment and material hoisting operations take place, Pierre Construction Group protects employees from fall hazards. When Pierre Construction Group is involved in hoisting operations a guardrail or personal fall arrest system will be used to protect workers.

When guardrails (or chains or gates) are removed to facilitate hoisting operations and one of our employees must lean through the access opening or out over the edge to receive or guide materials they will be protected by a personal fall arrest system.

#### I. Holes

At Pierre Construction Group worksites, areas that employees can trip or step into or through a hole or an object could fall through a hole and strike a worker, Pierre Construction Group will ensure that guardrails or covers are used to prevent these types of incidents.

We understand that OSHA does not intend that a guardrail be erected around holes while personnel are working at the hole, passing materials, and so on. Therefore, if the cover is removed while work is in progress, guardrails are not required because they would interfere with the performance of work. Our personnel will use personnel fall arrest systems in these situations. When the work has been completed, we will be required to either replace the cover or erect quardrails around the hole.

## J. Ramps, Runways, and Other Walkways

Pierre Construction Group will equip all ramps, runways, and other walkways with guardrails when employees and are subject to falling 6 feet or more to lower levels.

### K. Dangerous Equipment

Pierre Construction Group is committed to protecting our employees from falling onto dangerous equipment. Pierre Construction Group will use conventional fall protection or, if possible, eliminate the physical hazard below.

# L. Wall Openings

Employees who are exposed to the hazard of falling out or through wall openings where the outside bottom edge of the wall opening is 6 feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface must be protected from falling. Pierre

Construction Group protects employees from falls out or through wall openings by use of a guardrail system or personal fall arrest system.

# M. Protection From Falling Objects

When employees are exposed to falling objects, Pierre Construction Group ensures employees wear hard hats and also implement one of the following measures:

- Erect toeboards, screens, or guardrail systems to prevent objects from falling from higher levels.
- Erect a canopy structure and keep potential fall objects far enough from the edge of the higher level so that those objects would not go over the edge if they were incidentally moved.
- Barricade the area to which objects could fall, prohibit employees from entering the barricaded area, and keep objects that may fall far enough away from the edge of a higher level so that those objects would not go over the edge if they were incidentally moved.
- Cover or guard holes 6 feet or more above a lower level.

### N. Aerial Lifts

Anytime aerial lifts, including: (1) extensible boom platforms, (2) articulating boom platforms, (3) vertical towers, or (4) a combination of any such devices, are used to elevate employees to job-sites above ground, the following safety rules will apply:

- No aerial lift or uses will be 'field modified' for uses other than those intended by the manufacturer unless: (1) the manufacturer certifies the modification in writing, or (2) any other equivalent entity, such as a nationally recognized testing lab, certifies the aerial lift modification conforms to all applicable provisions of ANSI A92.2-1969, and the OSHA rules at 1926.453. The lift must be at least as safe as the equipment was before modification.
- Aerial lifts may be "field modified" for uses other than those intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory, to be in conformity with all applicable provisions of ANSI A92.2-1969 and this section and to be at least as safe as the equipment was before modification.
- Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted.
- Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.

- A personal fall arrest system shall be worn and a lanyard attached to the boom or basket when working from an aerial lift.
- Boom and basket load limits specified by the manufacturer shall not be exceeded
- Articulating boom and extensible boom platforms, primarily designed as
  personnel carriers, shall have both platform (upper) and lower controls.
  Upper controls shall be in or beside the platform within easy reach of
  the operator. Lower controls shall provide for overriding the upper
  controls. Controls shall be plainly marked as to their function. Lower
  level controls shall not be operated unless permission has been
  obtained from the employee in the lift, except in case of emergency.
- Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.
- Only authorized persons shall operate an aerial lift.

# O. Training Program

Under no circumstances shall employees work in areas where they might be exposed to fall hazards, do work requiring fall protection devices, or use fall protection devices until they have successfully completed a fall protection training program.

The training program must include both classroom instruction and operational training on recognition and avoidance of unsafe conditions and the regulations applicable to their work environment for each specific fall hazard the employee may encounter. The training program must be given by a "competent person" qualified in each aspect of the program, and must cover the following areas:

- The nature of fall hazards in the work area.
- Selection and use of personal fall arrest systems, including application limits, proper anchoring and tie-off techniques, estimation of free fall distance (including determination of deceleration distance and total fall distance to prevent striking a lower level), methods of use, and inspection and storage of the system.
- The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used.
- The use and operation of guardrail systems, personal fall arrest systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used.
- The role of each employee in the safety monitoring system when this is used.

- The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs.
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection.
- The role of employees in fall protection plans.
- The standards contained in Subpart M of the construction regulations.

Pierre Construction Group will identify all current and new employees who require training and schedule the classroom instruction for those employees. Training on the above components will occur both in the classroom and on the job site, as appropriate. Classroom training will cover written policy/procedures on fall protection and include a training video on the subject. Job site instruction will include demonstration of and practice in wearing fall protection equipment and any instruction necessary for a specific job.

Pierre Construction Group has the responsibility of determining when an employee who has already been trained, does not have the understanding and skill required by the training program (1926.503(a)).

A written certificate of training is required which must include:

- The name or other identity of the employee trained.
- The date(s) of training.
- The signature of the competent person who conducted the training or the signature of the employer.

Retraining is required when an employee cannot demonstrate the ability to recognize the hazards of falling and the procedures to be followed to minimize fall hazards.

### P. Enforcement

Constant awareness of and respect for fall hazards, and compliance with all safety rules are considered conditions of employment.

## Q. Incident Investigation

All incidents that result in injury to workers, regardless of their nature, are investigated and reported. It is an integral part of any safety program that documentation take place as soon as possible so that the cause and means of prevention can be identified to prevent a reoccurrence.

In the event that an employee falls or there is some other related, serious incident (e.g., a near miss) occurs, this plan will be reviewed to determine if additional practices, procedures, or training need to be implemented to prevent similar types of falls or incidents from occurring.

# R. Changes to Plan

This plan is reviewed by a qualified person as the job progresses to determine if additional practices, procedures or training needs to be implemented by the competent person to improve or provide additional fall protection. Workers are notified and trained, if necessary, in the new procedures.

### X. CRANE AND DERRICK OPERATIONS

#### A. Preface

This Crane Operations Plan has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group does not and will not own any crane. No Pierre Construction Group employee is permitted to operate a crane. Pierre Construction Group requires all subcontractors to meet these requirements and all OSHA regulations.

## B. Purpose

The written Crane Operation Procedures establish guidelines to be followed whenever any of our employees work with and around cranes at this company. The rules are established to:

- Provide a safe working environment,
- Govern operator use of cranes, and
- Ensure proper care and maintenance of cranes

These procedures establish uniform requirements designed to ensure that crane safety training, operation, and maintenance practices are communicated to and understood by the affected employees. These requirements are also designed to ensure that procedures are in place to protect the health and safety of all employees .

It is our intent to comply with the requirements of 29 CFR 1926.550 for construction activities. This regulation has requirements for crane operations.

### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

### D. Training

It is the policy of Pierre Construction Group to permit only trained and authorized personnel to operate cranes on our project jobsites. Each project superintendent will be responsible to ensure that only trained personnel operate cranes for

Pierre Construction Group. Subcontractors who wish to operate cranes for Pierre Construction Group will be responsible for providing certificates of training to Pierre Construction Group prior to operating any crane onsite.

# E. Training Certification

The project superintendent for Pierre Construction Group is responsible to check each crane operator who works at the site to ensure that he is a certified crane operator.

#### F. Performance Evaluation

Performance evaluations will be performed by Pierre Construction Group superintendents in the field. The evaluation will consist of observing the crane operators periodically to ensure that they are performing their job in a safe manner.

## G. Inspections

Our company does not perform inspections on cranes as our employees are not competent in this area. Pierre Construction Group relies on each crane subcontractor to perform all initial inspections and document the inspections.

# 1. Frequent Inspections

The company requires a competent person to perform pre-operational crane checks prior to beginning each shift. This person walks around the crane looking for defects or problem areas. Components that have a direct bearing on the safety of the crane and whose status can change from day to day with use, must be inspected daily, and when possible, observed during operation for any defects that could affect safe operation. There are four frequent inspections: Pre-Operational Site Activity and Inspection, Pre-Operational (Daily) Walk Around Inspection, Pre-Start-Up (In Cab) Inspection, and Crane Operation Checklist.

### 2. Pre-Operational (Daily) Walk Around Inspection

Inspection of all cranes and equipment will be made at the start of each shift and during usage to make sure they are in a safe operating condition. This inspection is the responsibility of the crane company's competent person(s). Any deficiencies must be repaired, or defective parts replaced, before the equipment can be used.

Before the actual inspection, some general information about the crane operator's qualifications and the crane's certifications should be gathered, such as:

- Operator Qualifications Observe the operator in action and when the opportunity permits ask a few question concerning the cranes capacity and restrictions imposed, either due to activity involved in or functional limitations.
- Crane Records Ask for inspection and maintenance records and verify that the appropriate operator's manual and load charts are available for that particular crane in use.
- In your initial survey of crane operations, look for crane stability, physical obstructions to movement or operation, and proximity of electrical power lines, as well as the following:
- Leveling Has the crane operator set the crane up level and in a position for safe rotation and operation?
- Outriggers Are the outriggers, where applicable, extended and being used in accordance with manufacturer's recommendations?
- Stability The relationship of the load weight, angle of boom, and its radius (the distance from the cranes center of rotation to the center of load) to the center of gravity of the load. Also, the condition of crane loading where the load moment acting to overturn the crane is less than the moment of the crane available to resist overturning.
- Structural Integrity The crane's main frame, crawler, track and outrigger supports, boom sections, and attachments are all considered part of structural components of lifting. In addition, all wire ropes, including stationary supports, help determine lifting capacity and are part of the structural elements of crane operations.

# 3. Pre-Start-Up (In Cab) Inspection

Our pre-start-up (in cab) inspection, performed by a designated competent person, includes, but is not limited to, the following:

Load Charts are the principle set of instructions and requirements for boom configurations and parts of line which establish crane capacity for safe crane operations.

- Availability The crane operator must have in his/her possession the appropriate load charts related to the crane in use and for the loads being lifted.
- Correct Use The crane operator must show adequate understanding and proficient use of the load charts as related to the equipment in use and the loads being lifted.

#### H. Crane Operation Checklist

The crane operation checklist, performed by a designated competent person, should include the following:

- Manufacturer's operating and Maintenance Manuals: Manufacturer's operating and maintenance manuals shall accompany all mobile hoisting equipment. These manuals stet forth specific inspection, operation and maintenance criteria for each mobile crane and lifting capacity.
- Guarding: All exposed moving parts such as gears, chains; reciprocating or rotating parts are guarded or isolated.
- Swing Clearance Protection: Materials for guarding rear swing area.
- High-Voltage Warning Sign: High-voltage warning signs displaying restrictions and requirements should be installed at the operator's station and at strategic locations on the crane.
- Boom Stops: Shock absorbing or hydraulic type boom stops are installed in a manner to resist boom overturning.
- Jib Boom Stops: Jib stops are restraints to resist overturning.
- Boom Angle Indicator: A boom angle indicator readable for the operator station is installed accurately to indicate boom angle.
- Boom Hoist Disconnect, Automatic Boom Hoist Shutoff: A boom hoist disconnect safety shutoff or hydraulic relief to automatically stops the boom hoist when the boom reaches a predetermined high angle.
- Two-Blocking Device: Cranes with telescoping booms should be equipped with a two-blocking damage prevention feature that has been tested on-site in accordance with manufacturer's requirements. All cranes hydraulic and fixed boom used to hoist personnel must be equipped with two-blocking devices on all hoist lines intended to be used in the operation. The anti-two blocking device has automatic capabilities for controlling functions that may cause a two-blocking condition.
- Power Controlled Lowering: Cranes for use to hoist personnel must be equipped for power controlled lowering operation on all hoist lines. Check clutch, chains, and sprockets for wear.
- Leveling Indicating Device: A device or procedure for leveling the crane must be provided.
- Sheaves: Sheave grooves shall be smooth and free from surface defects, cracks, or worn places that could cause rope damage. Flanges must not be broken, cracked, or chipped. The bottom of the sheave groove must form a close fitting saddle for the rope being used. Lower

load blocks must be equipped with close fitting guards. Almost every wire rope installation has one or more sheaves – ranging from traveling blocks with complicated reeving patterns to equalizing sheaves where only minimum rope movement is noticed.

 Main Hoist and Auxiliary Drums System: Drum crushing is a rope condition sometimes observed which indicates deterioration of the rope. Spooling is that characteristic of a rope which affects how it wraps onto and off a drum. Spoiling is affected by the care and skill with which the first larger of wraps is applied on the drum.

Manufacturer's criteria during inspection usually specify:

- Minimum number of wraps to remain on the drum.
- Condition of drum grooves
- Condition of flanges at the end of drum.
- Rope end attachment.
- Spooling characteristics of rope.
- Rope condition.
- Main Boom, Jib Boom, Boom Extension: Boom jibs, or extensions, must not be cracked or corroded. Bolts and rivets must be tight. Certification that repaired boom members meet manufacturers original design standard shall be documented. Non-certified repaired members shall not be used until recertified.
- Load Hooks and Hook Blocks: Hooks and blocks must be permanently labeled with rated capacity. Hooks and blocks are counterweighted to the weight of the overhaul line from highest hook position. Hooks must not have cracks or throat openings more than 15% of normal or twisted off center more than 10o Hooks and blocks must be permanently labeled with rated capacity. Hooks and blocks are counterweighted to the weight of the overhaul line from highest hook position. Hooks must not have cracks or throat openings more than 15% of normal or twisted off center more than 10o from the longitudinal axis. All hooks used to hoist personnel must be equipped with effective positive safety catches especially on hydraulic cranes.
- Hydraulic Hoses Fittings and Tubing: Flexible hoses must be sound and show no signs of leaking at the surface or its junction with the metal and couplings. Hoses must not show blistering or abnormal deformation to the outer covering and no leaks at threaded or clamped joints that cannot be eliminated by normal tightening or recommended procedures. There should be no evidence of excessive abrasion or scrubbing on the outer surfaces of hoses, rigid tubing, or hydraulic fittings.

- Outriggers: Outrigger number, locations, types and type of control are in accordance with manufacturer's specifications. Outriggers are designed and operated to relieve all weight from wheels or tracks within the boundaries of the outriggers. If not, the manufacturer's specifications and operating procedures must be clearly defined. Outriggers must be visible to the operator or a signal person during extension or setting.
- Load Rating Chart: A durable rating chart(s) with legible letters and figures must be attached to the crane in a location accessible to the operator while at the controls. The rating charts shall contain the following:
- A full and complete range of manufacturer's crane loading ratings at all stated operating radii.
- Optional equipment on the crane such as outriggers and extra counterweight which effect ratings.
- A work area chart for which capacities are listed in the load rating chart, i.e. over side, over rear, over front.
- Weights of auxiliary equipment, i.e. load block, jibs, boom extensions.
- A clearly distinguishable list of ratings based on structural, hydraulic or other factors rather than stability.
- A list of no-load work areas.
- A description of hoist line reeving requirements on the chart or in operator's manual.
- Wire Rope: Main hoist and auxiliary wire rope inspection should include examining for
- Broken wires.
- Excess wear.
- External damage from crushing, kinking, cutting or corrosion.
- Cab: Contains all crane function controls in additional to mechanical boom angle indicators, electric wipers, dash lights, warning lights and buzzers, fire extinguishers, seat belts, horn, and clear unbroken glass.
- Braking Systems: Truck cranes and self-propelled cranes mounted on rubber-tired chassis or frames must be equipped with a service brake system, secondary stopping emergency brake system and a parking brake system. Unless the owner/operator can show written evidence that such systems were not required by the standards or regulations in force at the date of manufacture and are not available from the manufacturer. The braking systems must have been inspected and tested and found to be in conformance with applicable requirements.

Crawler cranes are provided with brakes or other locking devices that effectively hold the machine stationary on level grade during the working cycle. The braking system must be capable of stopping and holding the machine on the maximum grade recommended for travel. The brakes or locks are arranged to engage or remain engaged in the event of loss of operating pressure or power.

- Turntable/Crane Body: Make sure that the rotation point of a crane gears and rollers are free of damage, wear and properly adjusted and the components are securely locked and free of cracks or damage. The swing locking mechanism must be functional (pawl, pin) and operated in the cab.
- Counterweight: The counterweight must be approved and installed according to manufacturer's specifications with attachment points secured.

# I. Periodic Inspections

Periodic Inspections (1 to 12 month intervals) – The periodic inspection procedure is intended to determine the need for repair or replacement of components to keep the machine in proper operating condition. It includes those items listed for daily inspections as well as, but not limited to, structural defects, excessive wear, and hydraulic or air leaks.

Frequent Inspection (daily to monthly intervals) – Frequent inspections are usually performed at the start of each shift by the operator who walks around the crane looking for defects or problem areas. Components that have a direct bearing on the safety of the crane and whose status can change from day to day with use must be inspected daily, and when possible, observed during operation for any defects that could affect safe operation. To help determine when the crane is safe to operate, daily inspections should be made at the start of each shift. Frequent inspections should include, but are not limited to the following:

- Check that all exposed moving parts are guarded. A removed guard may indicate that a mechanic is still working on part of the crane.
- Visually inspect each component of the crane used in lifting, swinging, or lowering the load or boom for any defects that might result in unsafe operation.
- Inspect all wire rope (including standing ropes), sheaves, drums rigging, hardware, and attachments. Remember, any hook that is deformed or cracked must be removed from service. Hooks with cracks, excessive throat openings of 15%, or hook twists of 10 degrees or more, must be removed from service.
- Check for freedom of rotation of all swivels.
- Visually inspect the boom and jib for straightness and any evidence of physical damage, such as cracking, bending, or any other deformation

of the welds. Look for corrosion under any attachments that are connected to the chords and lacing. Watch carefully for cracking or flaking of paint. This may indicate fatigue of the metal which often precedes a failure. On lattice booms, look for bent lacing. If they are kinked or bent, the main chord can lose substantial support in that area. When lacing is bent, the ends also tend to draw together which pulls the main chords out of shape. This precaution is especially important on tubular booms where every component must be straight and free from any dents. Do not attempt to straighten these members by hammering or heating them and drawing them out. They must be cut out and replaced with lacing to the manufacturer's specifications, procedures, and approval.

- Inspect tires for cuts, tears, breaks, and proper inflation.
- Visually inspect the crane for fluid leaks, both air and hydraulic.
- Visually check that the crane is properly lubricated. The fuel, lubricating oil, coolant and hydraulic oil reservoirs should be filled to proper levels.
- Check that the crane is equipped with a fully charged fire extinguisher and that the operator knows how to use it.
- Check all functional operating mechanisms such as: sheaves, drums, brakes, locking mechanisms, hooks, the boom, jib, hook rollers brackets, outrigger components, limit switches, safety devices, hydraulic cylinders, instruments, and lights.
- Check the turntable connections for weld cracks and loose or missing bolts. If they are loose, there is a good chance that they have been stretched.
- When checking the outriggers be sure that neither the beams nor the cylinders are distorted. Check that the welds are not cracked and that both the beams and cylinders extend and retract smoothly and hold the load. Check the condition of the floats, and check that they are securely attached.
- Inspect and test all brakes and clutches for proper adjustment and operation.
- Always inspect boom hoist lockout and other operator aids, such as anti-two-block devices (ATB) and load moment indicators (LMI), for proper operation and calibration.
- While the engine is running, check all gauges and warning lights for proper readings and operate all controls to see that they are functioning properly.
- Check for any broken or cracked glass that may affect the view of the operator.

#### J. Operating Procedures

Cranes are carefully designed, tested, and manufactured for safe operation. When used properly they can provide safe reliable service to lift or move loads. Because cranes have the ability to lift heavy loads to great heights, they also have an increased potential for catastrophic incidents if safe operating practices are not followed.

Crane operators and personnel working with cranes need to be knowledgeable of basic crane capacities, limitations, and specific job site restrictions, such as location of overhead electric power lines, unstable soil, or high wind conditions. Personnel working around crane operations also need to be aware of hoisting activities or any job restrictions imposed by crane operations, and ensure job site coordination of cranes. Crane inspectors therefore should become aware of these issues and, prior to starting an inspection, take time to observe the overall crane operations with respect to load capacity, site coordination, and any job site restrictions in effect.

# K. Lifting Principles

There are four basic lifting principles that govern a crane's mobility and safety during lifting operations:

# 1. Center of Gravity.

The center of gravity of any object is the point in the object where its weight can be assumed to be concentrated or, stated in another way, it is the point in the object around which its weight is evenly distributed. The location of the center of gravity of a mobile crane depends primarily on the weight and location of its heaviest components (boom, carrier, upperworks and counterweight).

#### 2. Leverage Cranes.

Leverage cranes use the principle of leverage to lift loads. Rotation of the upperworks (cab, boom, counterweight, load) changes the location of the crane's center of gravity, its leverage point or fulcrum.

As the upperworks rotates, the leverage of a mobile crane fluctuates. This rotation causes the crane's center of gravity to change and causes the distance between the crane's center of gravity and its tipping axis to also change. Stability can be effected by the fluctuating leverage the crane exerts on the load as it swings. The crane's rated capacity is therefore altered in the load chart to compensate for those changes in leverage.

Provided the ground is capable of supporting the load, a crane can be made more stable by moving the tipping axis further away from its center of gravity. The extra stability gained by moving the tipping axis can then be used to carry larger/heavier loads.

# 3. Stability.

This is the relationship of the load weight, angle of the boom and its radius (distance from the cranes center of rotation to the center of load) to the center of gravity of the load. The stability of a crane could also be effected by the support on which the crane is resting. A crane's load rating is generally developed for operations under ideal conditions, i.e., a level firm surface. Unlevel surfaces or soft ground therefore must be avoided. In areas where soft ground poses a support problem for stability, mats and or blocking should be used to distribute a crane's load and maintain a level stable condition.

In addition to overturning (stability failure), cranes can fail structurally if overloaded enough. Structural failure may occur before a stability failure. In other words, a mobile crane's structure may fail long before it tips. As loads are added beyond its rated capacity, a crane may fail structurally before there is any sign of tipping. Structural failure is not limited to total fracture; it includes all permanent damage such as overstressing, bending and twisting of any of the components. When a crane is overstressed, the damage may not be apparent. Nevertheless, a structural failure has occurred and overstressed components are then subject to catastrophic failure at some future time.

# 4. Structural Integrity.

The crane's main frame, crawler track and/or outrigger supports, boom sections, and attachments are all considered part of the structural integrity of lifting. in addition, all wire ropes, including stationary supports or attachment points, help determine lifting capacity and are part of the overall structural integrity of a crane's lifting capacity. The following elements may also affect structural integrity:

- The load chart capacity in relationship to stability;
- The boom angle limitations which affect stability and capacity; and
- The knowledge of the length of boom and radius in determining capacity.

Stability failures are foreseeable, but in structural failure it is almost impossible to predict what component will fail at any given time. No matter what the cause, if the crane is overloaded, structural failure can occur.

# L. Recordkeeping & Certification

All records and certifications are kept by the crane subcontractor. Pierre Construction Group does not own any cranes.

# M. Maintenance records

All records and certifications are kept by the crane subcontractor. Pierre Construction Group does not own any cranes.

#### XI. LADDERS AND STAIRWAYS

#### A. Preface

This Ladder and Stairway Safety Plan has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group requires all employees to meet these requirements and all OSHA regulations.

#### B. Purpose

This written Ladder and Stairway Safety Plan describes methods and practices for care and use of ladders that can be read and understood by all supervisors and employees at Pierre Construction Group. This written plan is intended to be used to:

- Create an awareness of the potential hazards when using ladders,
- Standardize procedures for use and care of the equipment,
- Minimize the possibility of injury or harm to our employees, and
- Demonstrate Pierre Construction Group compliance with ladder requirements in Subpart X of 29 CFR 1926.

#### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

#### D. Portable Ladders Including Job-Built Ladders

All portable ladders provided by Pierre Construction Group for use by employees are constructed according to OSHA specifications.

- At least four times the maximum intended load, except that each extraheavy-duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load.
- Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced when the ladder is in position for use
- Rungs, cleats, and steps of portable ladders and fixed ladders (including individual-rung/step ladders) shall be spaced not less than 10

- inches apart, nor more than 14 inches apart, as measured between center lines of the rungs, cleats and steps
- The minimum clear distance between the sides of individual-rung/step ladders and the minimum clear distance between the side rails of other fixed ladders shall be 16 inches.
- The minimum clear distance between side rails for all portable ladders shall be 11 1/2 inches.
- The rungs of individual-rung/step ladders shall be shaped such that employees' feet cannot slide off the end of the rungs.
- The rungs and steps of portable metal ladders shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize slipping.
- Ladders shall not be tied or fastened together to provide longer sections unless they are specifically designed for such use.
- A metal spreader or locking device shall be provided on each stepladder to hold the front and back sections in an open position when the ladder is being used.
- Ladder components shall be surfaced so as to prevent injury to an employee or subcontractor personnel from punctures or lacerations, and to prevent snagging of clothing.
- Wood ladders shall not be coated with any opaque covering, except for identification or warning labels which may be placed on one face only of a side rail.
- When portable ladders are used for access to an upper landing surface, the ladder side rails shall extend at least 3 feet above the upper landing surface to which the ladder is used to gain access; or, when such an extension is not possible because of the ladder's length, then the ladder shall be secured at its top to a rigid support that will not deflect, and a grasping device, such as a grabrail, shall be provided to assist employees in mounting and dismounting the ladder. In no case shall the extension be such that ladder deflection under a load would, by itself, cause the ladder to slip off its support.
- Ladders shall be maintained free of oil, grease, and other slipping hazards.
- Ladders shall not be loaded beyond the maximum intended load for which they were built, nor beyond their manufacturer's rated capacity.

#### E. Work Practices

 Ladders shall be used only for the purpose for which they were designed

- Ladders shall be used only on stable and level surfaces unless secured to prevent incidental displacement.
- Ladders shall not be used on slippery surfaces unless secured or provided with slip-resistant feet to prevent incidental displacement. Slipresistant feet shall not be used as a substitute for care in placing, lashing, or holding a ladder that is used upon slippery surfaces including, but not limited to, flat metal or concrete surfaces that are constructed so they cannot be prevented from becoming slippery.
- Ladders placed in any location where they can be displaced by workplace activities or traffic, such as in passageways, doorways, or driveways shall be secured to prevent incidental displacement, or a barricade shall be used to keep the activities or traffic away from the ladder.
- The area around the top and bottom of ladders shall be kept clear.
- Ladders shall have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized electrical equipment.
- The top or top step of a stepladder shall not be used as a step.
- Cross-bracing on the rear section of stepladders shall not be used for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections.
- Ladders shall be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe use.
- Portable ladders with structural defects, such as, but not limited to, broken or missing rungs, cleats, or steps, broken or split rails, corroded components, or other faulty or defective components, shall either be immediately marked in a manner that readily identifies them as defective, or be tagged with "Do Not Use" or similar language, and shall be withdrawn from service until repaired.
- When ascending or descending, the climber must face the ladder.
- Each employee or subcontractor personnel shall use at least one hand to grasp the ladder when progressing up and/or down the ladder.
- An employee or subcontractor personnel shall not carry any object or load that could cause the employee or subcontractor personnel to lose balance and fall.
- Portable ladders are designed as a one-man working ladder based on a 200-pound load and will be used accordingly.
- Portable rung and cleat ladders will be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-

- quarter of the working length of the ladder (the length along the ladder between the foot and the top support).
- The ladder will be so placed as to prevent slipping, or it will be lashed, or held in position. The ladder base section must be placed with a secure footing.
- The top of the ladder must be placed with the two rails supported, unless equipped with a single support attachment.
- On two-section extension ladders, the minimum overlap for the two sections in use will be according to OSHA specifications.
- Portable rung ladders with reinforced rails will be used only with the metal reinforcement on the under side.
- Ladders will not be:
- Used in a horizontal position as platforms, runways, or scaffolds.
- Placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded.
- Placed on boxes, barrels, or other unstable bases to obtain additional height.
- Tied or fastened together to provide longer sections. They must be equipped with the hardware fittings necessary if the manufacturer endorses extended uses.
- Used to gain access to a roof unless the top of the ladder extends at least 3 feet above the point of support, at eave, gutter, or roofline.
- Used as a brace, skid, guy or gin pole, gangway, or for other uses than that for which they were intended, unless specifically recommended for use by the manufacturer.

#### F. Inspections and Maintenance

Ladders will be inspected daily by Project Superintendents and the Warehouse Supervisor.

- Ladders will be maintained in good usable condition at all times.
- The joint between the steps and side rails is kept tight, all hardware and fittings are securely attached, and the movable parts operate freely without binding or undue play.
- Metal bearings of locks, wheels, pulleys, etc., will be frequently lubricated.
- Frayed or badly worn rope will be replaced.
- Safety feet and other auxiliary equipment will be kept in good condition.

- Ladders, which have developed defects, will be withdrawn from service for repair or destruction and tagged or marked as Dangerous, Do Not Use.
- If ladders tip over the user will:
- Inspect the ladder for side rails dents or bends, or excessively dented rungs;
- Check all rung-to-side-rail connections;
- · Check hardware connections; and
- Check rivets for shear.
- If ladders are exposed to oil and grease, equipment will be cleaned and kept free of oil, grease, or slippery materials.

#### G. Stairways

All temporary and permanent stairways on our jobsites will meet the following requirements before our employees are permitted to use them:

- Stairways that will not be a permanent part of the structure on which construction work is being performed will have landings of not less than 30 inches in the direction of travel and extend at least 22 inches in width at every 12 feet or less of vertical rise.
- Riser height and tread depth will be uniform within each flight of stairs, including any foundation structure used as one or more treads of the stairs. Variations in riser height or tread depth will not be over 1/4-inch in any stairway system.
- Metal pan landings and metal pan treads, when used, will be secured in place before filling with concrete or other material.
- All parts of stairways will be free of hazardous projections, such as protruding nails.
- Slippery conditions on stairways must be eliminated before the stairways are used to reach other levels.
- Except during stairway construction, foot traffic is prohibited on stairways with pan stairs where the treads and/or landings are to be filled in with concrete or other material at a later date, unless the stairs are temporarily fitted with wood or other solid material at least to the top edge of each pan. Such temporary treads and landings must be replaced when worn below the level of the top edge of the pan.
- Except during stairway construction, foot traffic is prohibited on skeleton metal stairs where permanent treads and/or landings are to be installed at a later date, unless the stairs are fitted with secured temporary treads and landings long enough to cover the entire tread and/or landing area.

- Treads for temporary service must be made of wood or other solid material, and must be installed the full width and depth of the stair.
- Stairways having four or more risers or rising more than 30 inches, whichever is less, must be equipped with at least one handrail and one stairrail system along each unprotected side or edge.
- Stairrails installed after March 15, 1991, must be not less than 36 inches from the upper surface of the stairrail system to the surface of the tread, in line with the face of the riser at the forward edge of the tread.
- Midrails, when used, must be located at a height midway between the top edge of the stairrail system and the stairway steps.
- When intermediate vertical members, such as balusters, are used between posts, they must be not more than 19 inches apart.
- The height of handrails must be not more than 37 inches nor less than 30 inches from the upper surface of the handrail to the surface of the tread, in line with the face of the riser at the forward edge of the tread.
- When the top edge of a stairrail system also serves as a handrail, the height of the top edge must be not more than 37 inches nor less than 36 inches from the upper surface of the stairrail system to the surface of the tread, in line with the face of the riser at the forward edge of the tread.
- Stairrail systems and handrails must be so surfaced as to prevent injury to employees from punctures or lacerations, and to prevent snagging of clothing.
- Handrails that will not be a permanent part of the structure being built must have a minimum clearance of 3 inches between the handrail and walls, stairrail systems, and other objects.
- Unprotected sides and edges of stairway landings must be provided with guardrail systems.

#### H. Disciplinary Procedures

Constant awareness of and respect for ladder and stairway safety procedures and compliance with all safety rules are considered conditions of employment. Supervisors reserve the right to issue disciplinary warnings to employees, up to and including termination, for failure to follow the guidelines of this ladder safety program.

#### XII. SMALL HAND AND POWER TOOLS

#### A. Preface

This Small Hand and Power Tools Plan has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group requires all employees to meet these requirements and all OSHA regulations.

#### B. Purpose

The section describes requirements for the use of portable hand and power tools used on Pierre Construction Group job sites.

#### C. General Requirements

All hand and power tools and similar equipment shall be maintained in a safe condition. All tools must be inspected and deemed defect free (by a competent person) before they are used. Pierre Construction Group superintendents and Warehouse Supervisor act as the competent person for Pierre Construction Group.

#### D. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

#### E. Guarding

All guards, which were furnished by the manufacturer or intended to be on the device, as developed by the manufacturer must remain on all tools during their use. Tools with defective guards will be removed from the job site immediately. Failure to do so will result in disciplinary action.

Any of the following devices used on Pierre Construction Group job sites & in the warehouse or which are part of tools used on Pierre Construction Group job sites must be guarded as to protect the personnel who use them. They are:

- Belts
- Gears

- Shafts
- Pulleys
- Sprockets
- Spindles
- Drums
- Fly-wheels
- Chains
- Any other reciprocating, rotating or moving equipment

#### F. Types of Guarding

One or more methods of machine guarding will be provided to protect personnel. The hazards typically created by portable hand tools include:

- Point of operation
- Ingoing nip points
- Rotating parts
- Flying chips and sparks

Examples of guarding methods include:

Barrier Guards

# **G.** Point of Operation Guarding

The point of operation is the area of the machine where work is actually performed upon the material being processed. The point of operation shall be guarded. All guarding devices shall be in conformity with any appropriate standards, applicable specific standards and designed and constructed as to prevent the operator from having any part of his body in the danger zone during the operating cycle.

Special hand tools for placing and removing material may be used to permit easy handling of material without the operator placing a hand in the danger zone. The tools are never to be used in place of guarding.

# H. Abrasive Wheel Machinery

Safety guards where the operator stands in front of the opening shall be constructed so that the peripheral protecting member can be adjusted to the constantly decreasing diameter of the wheel.

The maximum angular exposure above the horizontal plane of the wheel spindle shall never be exceeded. The distance between the wheel periphery and the

adjustable tongue or the end of the peripheral member at the top shall never exceed ¼".

#### I. Bench and Floor Stands

The angular exposure of the grinding wheel periphery and sides for safety guards used on machines known as bench and floor stands should not exceed 90 degrees, or ¼ of the periphery. The exposure shall begin at point not more than 65 degrees above the horizontal plane of the wheel spindle.

Whenever the nature of the work requires contact with the wheel below the horizontal plane of the spindle, the exposure shall not exceed 125 degrees.

#### J. Cylindrical Grinders

The maximum angular exposure of the grinding wheel periphery and sides for safety guards used on cylindrical grinding machines shall not exceed 180 degrees. This exposure shall begin at point not more than 65 degrees above the horizontal plane of the wheel spindle.

#### K. Personal Protective Equipment

Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive and splashing objects, or exposed to harmful dusts, fumes mists, vapors, or gases will wear the PPE necessary to protect them from the hazard. See the PPE section of this manual.

#### L. Lockout / Tagout

All powered and hand-held tools, which have been damaged, including electrical cords, or lack guards, will be placed out of service. Each tool will be locked, if possible. Each tool will always have at minimum a tag indicating that the tool is not to be used. The tool will be placed out of reach by removing it from the job or placing it in a designated gang box. Pierre Construction Group superintendents will place their damaged tools in job site trailers.

#### M. Training

All Pierre Construction Group employees will be trained before they may use hand or power tools. The Project Superintendent or Warehouse Supervisor will identify all employees who need training. Training consists of lecture and discussion as well as field training on specific tools being used.

#### XIII. HAZARDOUS MATERIAL COMMUNICATION PLAN

#### A. Preface

This Hazardous Communication Plan has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group requires all employees to meet these requirements and all OSHA regulations.

#### B. Purpose

Pierre Construction Group is complying with the requirements of OSHA's Hazard Communication Standard for construction and general industry by compiling a list of hazardous chemicals, using MSDSs, ensuring that containers are labeled, and training our workers present at a given construction site.

This program applies to all work operations in our company where employees may be exposed to hazardous substances under normal working conditions or during an emergency situation.

All employees can obtain further information on this written program, the hazard communication standard, applicable MSDSs, and chemical information lists from Safety Director. Under this program, our employees will be informed of the contents of the Hazard Communication Standard, the hazardous properties of chemicals with which they work, safe handling procedures, and measures to take to protect themselves from these chemicals.

#### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

All employees, or their designated representatives, can obtain further information on this written program, the hazard communication standard, applicable MSDSs, and chemical information lists from The Safety Director.

#### D. Hazard Evaluation Procedures

Our chemical inventory is a list of hazardous chemicals known to be present on our jobsites. Anyone who comes into contact with the hazardous chemicals on the list needs to know what those chemicals are and how to protect themselves. That is why it is so important that hazardous chemicals are identified, whether they are found in a container or generated in work operations (for example, welding fumes, dusts, and exhaust fumes). The hazardous chemicals on the list can cover a variety of physical forms including liquids, solids, gases, vapors, fumes, and mists. Sometimes hazardous chemicals can be identified using purchase orders. Identification of others requires an actual inventory of the jobsite.

#### E. Material Safety Data Sheets (MSDSs)

The MSDSs we use are fact sheets for chemicals which pose a physical or health hazard in the workplace. MSDSs provide our employees with specific information on the chemicals they use.

The Safety Director will contact the chemical manufacturer or vendor if additional research is necessary, as requested. The material safety data sheets are sent to and kept at each individual project jobsite trailer. Employees can obtain access to them anytime during normal working hours.

# F. Labels and Other Forms of Warning

Labels list at least the chemical identity, appropriate hazard warnings, and the name and address of the manufacturer, importer or other responsible party. The chemical identity is found on the label, the MSDS, and the chemical inventory. Therefore, the chemical identity links these three sources of information. The chemical identity used by the supplier may be a common or trade name, or a chemical name. The hazard warning is a brief statement of the hazardous effects of the chemical (i.e., "flammable," or "causes lung damage"). Labels frequently contain other information, such as precautionary measures (i.e., "do not use near open flame"), but this information is provided voluntarily by our company and is not required by the rule. Our labels are legible and prominently displayed, though their sizes and colors can vary.

Each Project Superintendent and the Warehouse Supervisor is responsible for ensuring that all hazardous chemicals are properly labeled and updated, as necessary.

If employees transfer chemicals from a labeled container to a portable container that is intended only for their IMMEDIATE use, no labels are required on the portable container.

#### G. Training

Everyone who works with or is potentially "exposed" to hazardous chemicals will receive initial training and any necessary retraining on the Hazard Communication Standard and the safe use of those hazardous chemicals. "Exposure" means that "an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin

contact or absorption, etc.) and includes potential (e.g., incidental or possible) exposure." Whenever a new hazard is introduced or an old hazard changes, additional training is provided.

Information and training is a critical part of the hazard communication program. We train our employees to read and understand the information on labels and MSDSs, determine how the information can be obtained and used in their own work areas, and understand the risks of exposure to the chemicals in their work areas as well as the ways to protect themselves.

Our goal is to ensure employee comprehension and understanding including being aware that they are exposed to hazardous chemicals, knowing how to read and use labels and MSDSs, and appropriately following the protective measures we have established.

All employees receive training for hazard communication. The training plan emphasizes these elements:

- Summary of the standard and this written program, including what hazardous chemicals are present, the labeling system used, and access to MSDS information and what it means.
- Chemical and physical properties of hazardous materials (e.g., flash point, reactivity) and methods that can be used to detect the presence or release of chemicals (including chemicals in unlabeled pipes).
- Physical hazards of chemicals (e.g., potential for fire, explosion, etc.).
- Health hazards, including signs and symptoms of exposure, associated with exposure to chemicals and any medical condition known to be aggravated by exposure to the chemical.
- Procedures to protect against hazards (e.g., engineering controls; work practices or methods to assure proper use and handling of chemicals; personal protective equipment required, and its proper use, and maintenance; and procedures for reporting chemical emergencies).

#### XIV. POWERED INDUSTRIAL TRUCK - FORKLIFT OPERATION PLAN

#### A. Preface

This Forklift Operations Plan has been written as a general guide for Pierre Construction Group employees. Pierre Construction Group requires all employees who operate forklifts to meet these requirements and all OSHA regulations.

#### B. Purpose

It's hard to imagine any tool more important to materials handling than the powered industrial truck-the forklift. Like many companies, Pierre Construction Group relies on these versatile vehicles to load, unload, and move stock and other materials.

This written Forklift Operation Program establishes guidelines to be followed whenever any of our employees work with powered industrial trucks at Pierre Construction Group. The rules established are to be followed to:

- Provide a safe working environment,
- Govern operator use of powered industrial trucks, and
- Ensure proper care and maintenance of powered industrial trucks.

The procedures here establish uniform requirements designed to ensure that powered industrial truck safety training, operation, and maintenance practices are communicated to and understood by the affected employees. These requirements also are designed to ensure that procedures are in place to safeguard the health and safety of all employees.

It is our intent to comply with the requirements of OSHA's 29 CFR 1926.600, 1926.602(c), and 1926.441 for construction activities. These regulations have requirements for powered industrial truck operations, including that for battery care and charging. We also comply with applicable requirements of design, construction, stability, inspection, testing, maintenance, and operation of ASME/ANSI B56.1-1969, Safety Standard for Low Lift and High Lift Trucks. However, the powered industrial trucks we operate in our storage and maintenance yards and warehouses comply with 29 CFR 1910.176 and 1910.178.

#### C. Administrative Duties

The Safety Director is responsible for developing and maintaining all Pierre Construction Group safety programs. A copy of this plan may be reviewed by employees at anytime. It is located at Pierre Construction Group corporate office. In addition, The Safety Director is responsible for maintaining any records related to all safety programs for Pierre Construction Group.

We encourage all suggestions because we are committed to the success of our safety program. We strive for clear understanding, safe behavior, and involvement from every level of our company. Please direct all comments concerning this plan to The Safety Director.

#### D. Training

The Project Superintendent and Warehouse Supervisor will identify all new employees in the employee orientation program and make arrangements with The Safety Director to schedule training for those who may operate a forklift within our company.

Before we begin training a new employee, our project superintendents or warehouse manager and The Safety Director determines if the potential powered industrial truck operator is capable of performing the duties necessary to be a competent and safe driver. This is based upon his/her physical and mental abilities to perform job functions that are essential to the operation of the vehicle.

These capabilities include the level at which the operator must:

- See and hear within reasonably acceptable limits. This includes the ability to see at a distance and peripherally. In certain instances, it is also necessary for the driver to discern different colors, primarily red, yellow, and green;
- Endure the physical demands of the job; and
- Endure the environmental extremes of the job, such as the ability of the
  person to work in areas of excessive cold or heat. An operator must be
  able to climb onto and off of a truck, to sit in the vehicle for extended
  periods of time, and to turn his/her body to look in the direction of travel
  when driving in reverse.

Once a potential operator is determined to be capable of performing powered industrial truck duties, the Safety Director will conduct initial training and evaluation. Instructor(s) have the necessary knowledge, training, and experience to train new powered industrial truck operators.

#### E. Initial Training

During an operator's initial training, the instructor(s) combine(s) both classroom instruction and practical training.

Classroom instruction, itself, covers the following topics:

- Introduction
  - Overview of the program

- Goal of the program: to provide a training program based on the trainee's prior knowledge, the types of vehicles used in the workplace, and the hazards of the workplace.
- Course will utilize video, group discussion and hands-on practice. Each operator must obtain the knowledge and skills needed to do their job correctly and safely.

#### Types, Features, and Physics

- Familiarize each operator with the basic types and functions of powered industrial trucks.
- Develop an understanding of the information shown on a data plate.
- Understand the critical truck measurements that affect safety.
- Understand the forces that cause tip-overs, and the truck design considerations and safety ratings that help prevent them, including the "stability triangle."

#### Inspecting the vehicle

- Understand the purpose and importance of pre-operational checkouts.
- Provide a basic understanding of areas covered during a preoperational checkout.
- Familiarize each operator with a checklist for pre-operational checkouts, and what to do if a problem is discovered.

# Driving the Truck

- Understand the elements of safe movement of a powered industrial truck.
- Understand the differences between an automobile and a powered industrial truck.
- Recognize the safety hazards associated with operating a powered industrial.

#### Load Handling

- Understand the elements of load lifting safety.
- Understand the safe operating procedures for raising and lowering loads in aisles.

#### Battery and Charging

- Understand the elements and procedures of safely changing and charging batteries.
- Discuss filling procedures and maintenance.

- Discuss related safety issues.
- Safety Concerns
  - Review/reinforce potential of serious injury
  - Review/reinforce safety procedures in your facility.
- Specific Truck and Workplace Training/Hands-On
  - Review features of specific PIT's to be operated.
  - Review operating procedures of specific PIT's to be operated.
  - Review safety concerns of specific PIT's to be operated.
  - Review workplace conditions and safety concerns of areas where PIT's will be operated.
  - Learn/practice actual operation of specific PIT's to be operated and specific workplace conditions where PIT's will be operated.
  - Demonstrate proficiency performing the powered industrial truck operator duties specific to the trainee's position and workplace conditions.

All powered industrial truck operators are trained and tested on the equipment they will be driving before they begin their job. Our practical training covers the following:

Each type of powered industrial truck has a different "feel" to it, and that makes operating it slightly different from operating other industrial trucks. The work areas where these trucks are being used also present particular hazards. For these reasons, it is impractical to develop a single "generic" training program that fits all powered industrial trucks. Accordingly, during training, Pierre Construction Group covers the operational hazards of our powered industrial trucks, including:

- General hazards that apply to the operation of all or most powered industrial trucks;
- Hazards associated with the particular make and model of the truck;
- Hazards of the workplace in general; and
- Hazards of the particular workplace where the vehicle is operated.

If each potential operator has received training in any of the elements of our training program, and is evaluated to be competent, they need not be retrained in those elements before initial assignment in our workplace. The training must be specific for the types of trucks that employee will be authorized to operate and for the type of workplace in which the trucks will be operated.

# 1. Training Certification

After an employee has completed the training program, the instructor will determine whether the potential driver can safely perform the job. At this point, the trainee will take a performance test or practical exercise through which the instructor(s) will decide if the training has been adequate. All powered industrial truck trainees are tested on the equipment they will be driving.

The Project Superintendent, Warehouse Supervisor and The Safety Director are responsible for keeping records of certification for each Pierre Construction Group employee who has successfully completed operator training and testing. Each certificate includes the name of the driver, the date(s) of the training, and the name of the person who did the training and evaluation.

#### Performance Evaluation

Each certified powered industrial truck operator is evaluated at least once every three years to verify that the operator has retained and uses the knowledge and skills needed to drive safely. If the evaluation shows that the operator is lacking the appropriate skills and knowledge, the operator is retrained.

# 2. Refresher Training

Refresher training is triggered by any of the following situations:

- If the operator is involved in an incident or a near-miss incident;
- If the operator has been observed driving the vehicle in an unsafe manner;
- When the operator is assigned to a different type of truck;
- If it has been determined during an evaluation that the operator needs additional training; or
- When there are changes in the workplace that could affect safe operation of the truck. This could include a different type of paving, reconfiguration of the storage racks, new construction leading to narrower aisles, or restricted visibility.

#### 3. Current Certified Truck Operators

Under no circumstances shall a Pierre Construction Group employee operate a powered industrial truck until he/she has successfully completed this company's powered industrial truck training program. Regardless of claimed previous experience, all new operators must at least undergo a performance evaluation.

#### F. Inspections

The company requires operators to perform pre-operational equipment checks on powered industrial trucks prior to the beginning of each shift in which those trucks will be utilized to ensure the safe operating condition of the vehicle. The pre-operational check is performed by completing a daily truck inspection checklist.

No blank spaces are allowed on the form. If an item does not apply, we use the code N/A. We also require that operators fill out the comment section thoroughly and accurately if there are any operational or visual defects. That way our field management personnel can pinpoint and repair the problem before the truck becomes unsafe to operate.

#### **G.** Operating Procedures

Driving a powered industrial truck is fundamentally different than driving a car or other trucks. In fact, powered industrial trucks:

- Are usually steered by the rear wheels,
- Steer more easily loaded than empty,
- Are driven in reverse as often as forward,
- Are often steered with one hand, and
- Have a center of gravity toward the rear, shifting to the front as forks are raised.
- Unlike cars, some powered industrial trucks have a greater chance of tipping over when suddenly turned. Because of the design of powered industrial trucks, they have a very short rear wheel swing. This means that, at high speeds, sudden turns can tip them and could result in serious injury and damage. Speed can cause the center of gravity to shift dramatically. Similarly, speeding over rough surfaces can cause tipping.

Although structurally different than cars, powered industrial trucks, like cars, can collide with property and people. Therefore it is our policy for all operators to follow these driving procedures.

As a minimum, employers should ensure that the following existing regulatory requirements are complied with:

- No part of a load must pass over any worker;
- A lift truck left unattended must be immobilized and secured against incidental movement and forks, buckets or other attachments must be in the lowered position or firmly supported;

- No load may exceed the maximum rated load and loads must be handled in accordance with the height and weight restrictions on the vehicle's load chart:
- When a load is in the raised position, the controls must be attended by an operator;
- If an operator does not have a clear view, a signaler who has been instructed in a code of signals for managing traffic in the workplace must be used:
- Loads must be carried as close to the ground or floor as the situation permits;
- Loads that may tip or fall and endanger a worker must be secured;
- Where a lift truck is required to enter or exit a vehicle to load or unload, that vehicle must be immobilized and secured against incidental movement;
- A lift truck must not be used to support, raise or lower a worker on a construction site and must only be so used in an industrial establishment if the work is carried out in accordance with Regulation 851 (Section 52);
- Barriers, warning signs, designated walkways or other safeguards must be provided where pedestrians are exposed to the risk of collision.

# H. Load Lifting and Carrying

Powered industrial trucks can lift only so much. Each truck has its own load capacity, which is indicated on the rating plate. Powered industrial trucks also have three-point suspension that forms an imaginary triangle from the left front wheel to the right front wheel to the point between the two back wheels. The center of gravity for a powered industrial truck must lie somewhere within this triangle or else the truck will tip over. The load and its position on the forks, as well as traveling speed and slopes, all affect the center of gravity. Loads, themselves, have gravity with which to contend. Loads need special care so that they do not fall. In order to prevent tipping and load falling hazards, we have established the following load lifting and carrying procedures:

#### I. Load-handling Capacity

Clause 51(1)(b) of Regulation 851 requires a lifting device to be thoroughly examined by a competent person, before it is used "for the first time" and at least annually, to determine if it is capable of handling its maximum rated load. "For the first time" should be interpreted as "for the first time by the employer". This means that even new equipment must be examined to establish that its lifting capacity is as specified. The rationale is that a dealer can make modifications to the equipment and potentially render the manufacturer's specifications invalid. Verification of the load rating is even more necessary when second-hand

vehicles are purchased. In either case, while it may seem to be the responsibility of the seller to have the examination done (just as used automobiles must be certified before sale), the law does, in fact, place this duty squarely on the employer. The employer could meet this duty, however, by only purchasing equipment from a supplier who can ensure that it has met the requirements of the regulation, i.e., it has been examined in accordance with clause 51(1)(b).

The situation is different when a lift truck is leased (or rented) rather than purchased. In such cases, subsection 31(1) of the OHS Act clearly states that it is the supplier who must ensure that the lift truck complies with regulations. An employer who is leasing a lift truck should therefore get written verification of such compliance from the supplier. However, unless the leasing (or rental) agreement specifies otherwise, the user of the leased (or rented) equipment will be responsible for the ongoing general maintenance of the equipment.

# J. Personal Protective Equipment (PPE)

All operators required to wear this equipment are trained:

- When PPE is necessary;
- What PPE is necessary;
- How to properly put on, take off, adjust, and wear PPE;
- Limitations of the PPE; and
- Proper care, maintenance, useful life, and disposal of PPE.

#### XV. LOCKOUT/TAGOUT - ENERGY CONTROL PROGRAM

#### A. Purpose

This procedure establishes Pierre Construction Group's requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment, in accordance with the requirements of OSHA's 1910.147. It is used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury. This program applies to all work operations at Pierre Construction Group where employees must deal with lockout/tagout situations as part of their job duties.

#### B. Authorized and Affected Employees

Authorized employees subject to the requirements of this program and to be trained on their duties within it include, all maintenance staff and warehouse personnel.

Affected employees subject to the requirements of this program and to be trained on their duties within it include all other employees.

# C. Machinery and Equipment

The machinery and equipment in this facility that falls under the Control of Hazardous Energy Standard includes the following:

- 1. Auto Brake AB 1016 (2)
- 2. Auto Brake AB1014 (1)

#### D. Lockout/Tagout

Lockout is the preferred method of isolating machines or equipment from energy sources. Tagout is to be performed instead of lockout only when there is no way to lockout a machine. The following pieces of machinery subject to the Control of Hazardous Energy Standard are not able to be locked out and thus must be tagged out.

# E. Lockout/Tagout Procedures

Affected employees are notified when their machine is to be locked when authorized employees place both a lock and tag on the device. The machinery and equipment listed above follows this shutdown, isolation, blocking and securing procedures for lockout/tagout:

# 1. Preparation for shutdown

Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

# 2. Machine or equipment shutdown

The machine or equipment shall be turned off or shut down using the procedures established for the machine or the equipment. An orderly shutdown must be utilized to avoid any additional or increased hazard(s) to employees as a result of equipment stoppage.

# 3. Machine or equipment isolation

All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).

The machinery and equipment listed above follows these lockout placement, removal, transfer, and responsibility procedures.

# F. Lockout or Tagout Device Application

- Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees.
- Lockout devices, where used, shall be affixed in a manner that will hold the energy isolating devices in a "safe" or "off" position.
- Tagout devices, where used, shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited.
- Where tagout devices are used with energy isolating devices designed with the capability for being locked, the tag attachment shall be fastened at the same point at which the lock would have been attached.
- Where a tag cannot be affixed directly to the energy isolating device, the tag shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.

#### G. Stored Energy

Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieve disconnected, restrained, and otherwise rendered safe.

If there is a possibility or re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

#### H. Verification of Isolation

Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and deenergization of the machine or equipment have been accomplished, even though isolation is performed prior to shutdown and is checked at that point.

#### I. Release from Lockout or Tagout

Before lockout or tagout devices are removed and energy is restored to the machine or equipment, procedures shall be followed and action taken by the authorized employee(s) to ensure the following:

- The machine or equipment
  - The work area shall be inspected to ensure that nonessential items have been removed and to ensure that machine or equipment components are operationally intact
- Employees
  - The work area shall be checked to ensure that all employees have been safely positioned or removed.
  - After lockout or tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout device(s) have been removed.

# J. Lockout or Tagout devices removal

Each lockout or tagout device shall be removed from each energy isolating device by the employee who applied the device.

Exception: When the authorized employee who applied the lockout or tagout device is not available to remove it, that device may be removed under the direction of our Safety Director. This can only occur if the employee has discussed his progress with the operation in progress and the Safety Director clearly understand what work and hazards remain. The Safety Director must then communicate that information to an Authorized employee who can remove the lock. Otherwise the Safety Director can remove the lock. Our specific procedure contains the following items:

- Verification by the Safety Director that the authorized employee who applied the device is not at the facility.
- Make all the reasonable effort to contact the authorized employee to inform him/her that his/her lockout or tagout device has been removed, and, ensuring that the authorized employee has this knowledge before he/she resumes work at the facility.

We ensure that equipment is disconnected from the energy source(s) by:

- Checking that no personnel are exposed, then
- Verifying the isolation of the equipment by operating the push button or other normal operating or startup control(s) to make certain the equipment will not operate.
- Return the operating control(s) to neutral or "off" position after verifying that the equipment is isolated.

The machine is now locked out and servicing or maintenance may safely begin.

#### K. Periodic Inspections

A periodic inspection is done, looking at the energy control procedures performed to ensure that the procedure and requirement of the standard are being followed. This inspection is performed annually.

# Pierre Construction Group, INC.

# ROPER WHITNEY AUTOBRAKE MACHINES MODEL NO's. AB1014, AB1016 Procedure 0001 EQUIPMENT LOCKOUT PROCEDURES

#### **PURPOSE:**

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is performed on Roper Whitney Auto Brake machines. It shall be used to ensure that the machines or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform ant servicing or maintenance where unexpected energization or start up of the machines or release of stored energy could cause injury to the employee.

#### **COMPLIANCE WITH THIS PROGRAM:**

All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this procedure. All employees, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance shall not attempt to start, energize, or use that machine or equipment.

Employees found to be in violation of this direction will be given disciplinary actions as follows:

- 1. 1st offense Verbal Warning
- 2. 2<sup>nd</sup> offense Written Warning
- 3. 3<sup>rd</sup> offense Suspended without pay
- 4. 4<sup>th</sup> offense Employment termination

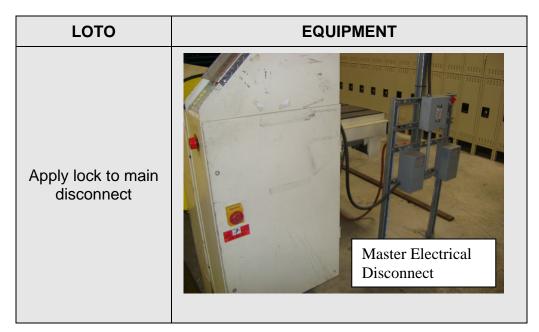
#### SEQUENCE OF LOCKOUT

- 1) Employee Notification: Notify all affected employees that servicing or maintenance is required and that the Auto Brake machine must be shut down and locked out to perform the servicing or maintenance. The following personnel shall be notified:
  - Auto Brake Operators
  - Auto Brake Maintenance Personnel
  - Auto Brake Subcontractor Maintenance Personnel
- **2) Magnitude of Energy:** Personnel shall understand all the types and magnitudes (s) of energy, it hazards and the associated methods used to control the energy. For

these Auto Brake machines, the follow energies and magnitudes have been identified:

ENERGY	MAGNITUDE
ELECTRICAL	280 VOLTS

- 3) Deactivating Auto Brake Machines: Personnel must follow operators instruction to de-activate the energy isolating devise(s) so that the machine is isolated from all energy sources. The following steps shall be taken to deactivate these machines:
  - Power down machines at master control panel per manufactures instructions
  - Shut off main electrical disconnect switch.
- **4) Apply Equipment Lockout Procedures:** Personnel must lockout the Auto Brake machines as follows prior to performing any maintenance or servicing. If more than one individual is to perform maintenance on these machines, each individual who is to work on these machines must apply their own personnel lock (group lockout):



- 5) Possible Stored Energy: There is no stored electrical energy in these machines.
- 6) Verifying Equipment Isolation: Personnel must verify that all equipment and parts are disconnected from the energy source(s) by first checking that no personnel are exposed, then verifying the isolation of the equipment by operator the normal operating controls (master control panel) to ensure the equipment will not operate.

- **7) Restoring Power:** When servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken:
  - Check the machine and the immediate area around the machine to ensure that nonessential items have been removed from around the machine and components are operationally intact.
  - Check the work area to ensure that personnel have been safely positioned or removed from the area
  - Verify that the controls are in neutral
  - Remove the lockout devices and reenergize the machine.
  - Notify affected employees that the servicing or maintenance is completed and the machine is ready for use

#### XVI. MACHINE/EQUIPMENT SAFETY & GUARDING PLAN

#### A. Purpose

It is the policy of Pierre Construction Group to permit only trained and authorized employees to operate machinery, tools, or equipment at any time. This policy is applicable to: daily operators of machinery, tools, and equipment; and those who only occasionally have cause to use machinery, tools, or equipment.

This written Machine/Equipment Safety and Guarding Plan describes methods and practices for care and use of machines, equipment, and tools that can be read and understood by all managers, supervisors, and employees at Pierre Construction Group. This written plan is intended to be used to:

- create an awareness of the hazards among our workforce,
- standardize procedures for use and care of the equipment,
- provide a consistent format for training employees on the proper procedures to be used,
- minimize the possibility of injury or harm to our employees, and
- demonstrate Pierre Construction Groups compliance with machine safety and equipment usage requirements for general industry in Subpart O and P of 29 CFR 1910.

# B. List of Machinery, Tools, and Equipment

The machinery, tools, and equipment used at Pierre Construction Group includes the following:

Location	Equipment
Warehouse	Drill Press Grinding Wheels Portable Grinders Metal Bending Equipment

#### C. Pre-Operational Procedures

Hand tools must be inspected prior to use to ensure that:

- For tools with jaws, jaws are not sprung to the point of slippage.
- For impact tools, they are free of mushroom heads.
- For tools with wooden handles, the handles are free of splinters or cracks and are tight in the tool.
- The tool is otherwise safe for use.

Any machine or power-operated tool, function, or process which may cause injury will be guarded. All permanent guards are securely attached in good working order and all removable guards are in place on the machine or equipment before starting use.

Guards that meet these minimum general requirements will:

- Prevent contact The guards prevent hands, arms, or any part of an employee's body or clothing from making contact with dangerous moving parts.
- Secure Guards are not easy to remove or alter. Guards and safety devices are made of durable material that will withstand the conditions of normal use. They are firmly secured to the machine.
- Protect from falling objects The guards ensure that no objects can fall into moving parts.
- Create no new hazards If a guard creates a hazard of its own such as shear point, a jagged edge, or an unfinished surface which can cause a laceration, then employees must not use the piece of machinery or equipment.

If a guard is defective, damaged, or in any way does not meet the requirements of these procedures, employees may not use the machine, and must immediately notify the Safety Director or Pierre Construction Owner.

Employees must put on necessary and appropriate personal protective equipment (PPE) for use with the machinery or equipment before beginning use. PPE can be obtained from the Safety Director or Pierre Construction Owner.

Employees must make sure that work areas are well-lit, dry, and clean before beginning work. Sawdust, paper and oily rags are a fire hazard and can damage machinery and equipment.

Employees must change clothing or take off jewelry that could become entangled in the machinery or equipment they are to use.

Only qualified personnel may install or repair equipment. Employees must notify their Supervisor or Pierre Construction Owner if machinery or equipment is in need of any type of repair.

If a lock or tag is in place on a piece of machinery or equipment, it may not be removed and the machinery or equipment may not be used.

## D. Operating Procedures

• Employees may not remove a guard for any reason while operating any piece of machinery or equipment.

- All necessary personal protective equipment (PPE) is worn while the machinery or equipment is running.
- If an employee is distracted or unable to focus on the work with the machinery or equipment, they must stop work with that machinery or equipment.
- Upon finishing with a piece of equipment, tool, or machine, basic maintenance must be performed. It should be kept sharp, oiled, and stored properly, as appropriate.
- Problem equipment must be immediately reported to a Supervisor or the Safety Director so it can be repaired or replaced.
- Employees must always use the proper piece of machinery or equipment for the job.
- Electric cables and cords are kept clean and free from kinks.
   Equipment may never be carried by its cord.

# E. Training Program

Under no circumstances will an employee operate a piece of machinery or equipment until he/she has successfully completed Pierre Construction Group's machinery and equipment training program. This includes all new operators or users of machinery and equipment, regardless of claimed previous experience.

The Pierre Construction Group training program includes training on each specific piece of machinery and equipment to be utilized by the employee in the assigned work area.

All employees receive Machine Guarding training as they are permitted to operate equipment covered by this section.

Pierre Construction Group identifies all new employees and makes arrangements with department management to schedule the classroom instruction for those employees previously identified in this section as needing training.

Operational training consists of:

- Pre-operational procedures.
- Basic maintenance for machinery and equipment.
- Operational review of each piece of machinery, tool, or equipment the employee is expected to operate.

The Safety Director is responsible for scheduling the employee to complete the operational training. Operational training is on the job training.

# F. New Equipment Start-up Inspection Procedures

The procedures in this section are required at the following times:

- During and after the installation of new equipment,
- During and after the rearrangement of existing equipment into a new layout, and
- During the relocation of existing equipment.

The Safety Director is accountable for all phases of installation and for making sure equipment is safe and efficient to run before letting employees operate the equipment. Once the Safety Director has verified completion, the equipment can be put into service.

# G. Inspections

Machinery, tools, and equipment will be inspected regularly to insure safety and serviceability. The Warehouse Manager inspects all machinery, equipment, cords and accessories before and after each use or he will appoint his employees to do so.

# H. Recordkeeping

The Warehouse Manager is responsible for maintaining records of inspections of machinery, tools, and equipment. These records are kept in the Maintenance office.

Human Resources maintains records in employee safety files of individuals trained and certified for machinery and equipment.

# I. Disciplinary Procedures

Constant awareness of and respect for machine, tool, and equipment safety procedures and compliance with all safety rules are considered conditions of employment. Supervisors, Safety Director and the Human Resources reserve the right to issue disciplinary warnings to employees, up to and including termination, for failure to follow the guidelines of this machine, tool, and equipment safety program.

# J. Program Evaluation

Although we may not be able to eliminate all problems, we try to eliminate as many as possible to improve employee protection and encourage employee safe practices. Therefore the Safety Director is responsible for evaluating and updating this written plan. The evaluation will include a review of reported accidents, as well as near misses, to identify areas where additional safety measures need to be taken.

#### XVII. RESPIRATORY PROTECTION PROGRAM

## A. Purpose

This respirator program lays out standard operating procedures to ensure the protection of all employees from respiratory hazards through proper selection and use of respirators. Respirators are to be used only where engineering control of respirator hazards is not feasible, while engineering controls are being installed, or in emergencies. This program is in accordance with the requirements of OSHA 29 CFR 1910.134.

# B. Respirator Selection

Respirators are selected on the basis of respiratory hazards to which the worker is exposed and workplace and user factors that affect respirator performance and reliability. All selections are made by the Safety Director.

The Safety Director will develop detailed written standard operating procedures governing the selection of respirators using the Selection Procedure Checklist based on 29 CFR 1910.134.

When selecting any respirator in general:

- Select and provide respirators based on respiratory hazard(s) to which a worker is exposed and workplace and user factors that affect respirator performance and reliability.
- Select a NIOSH-certified respirator.
- Identify and evaluate the respiratory hazard(s) in the workplace, including a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. We have no IDLH environments.
- Select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.
- For protection against particulates, provide Dust Masks

Detailed procedures will be included as appendices to this respirator program. Outside consultation, manufacturer's assistance, and other recognized authorities will be consulted if there is any doubt regarding proper selection.

#### C. Medical Evaluations

A medical evaluation to determine whether an employee is able to use a given respirator is an important element of an effective Respiratory Protection Program and is necessary to prevent injuries, illnesses, and even, in rare cases, death from the physiological burden imposed by respirator use.

At Pierre Construction Group, persons will not be assigned to tasks requiring use of respirators nor fit tested unless it has been determined that they are physically able to perform the work and use the respirator.

All medical questionnaires and examinations are confidential and handled during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire is administered so that the employee understands its content. All employees are provided an opportunity to discuss the questionnaire and examination results with their physician or other licensed health care professional (PLHCP).

Before any initial examination or questionnaire is given, we supply the PLHCP with the following information so that he/she can make the best recommendation concerning an employee's ability to use a respirator:

- Type and weight of the respirator to be used by the employee;
- Duration and frequency of respirator use;
- Expected physical work effort;
- Additional protective clothing and equipment to be worn;
- Temperature and humidity extremes that may be encountered.

Once the PLHCP determines whether the employee has the ability to use or not use a respirator, he/she sends Pierre Construction Group a written recommendation containing only the following information:

- Limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator;
- The need, if any, for follow-up medical evaluations; and
- A statement that the PLHCP has provided the employee with a copy of the PLHCP's written recommendation.

# 1. Follow-up Medical Examination

A follow-up medical examination will be provided if a positive response is given to any question among questions 1 through 8 in Section 2, Part A of Appendix C of 29 CFR 1910.134 or if an employee's initial medical examination demonstrates the need for a follow-up medical examination. Our follow-up medical examination includes tests, consultations, or diagnostic procedures that the PLHCP deems necessary to make a final determination.

## 2. Additional Medical Examinations

Pierre Construction Group provides additional medical evaluations if:

- An employee reports medical signs or symptoms that are related to ability to use a respirator;
- A PLHCP, supervisor, or the respirator program administrator informs the employer that an employee needs to be reevaluated:
- Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or
- A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.

# D. Fit Testing Procedures

It is axiomatic that respirators must fit properly to provide protection. If a tight seal is not maintained between the face piece and the employee's face, contaminated air will be drawn into the face piece and be breathed by the employee. Fit testing seeks to protect the employee against breathing contaminated ambient air and is one of the core provisions of our respirator program.

In general, fit testing may be either qualitative or quantitative. Qualitative fit testing (QLFT) involves the introduction of a gas, vapor, or aerosol test agent into an area around the head of the respirator user. If that user can detect the presence of the test agent through subjective means, such as odor, taste, or irritation, the respirator fit is inadequate.

In a quantitative respirator fit test (QNFT), the adequacy of respirator fit is assessed by measuring the amount of leakage into the respirator, either by generating a test aerosol as a test atmosphere, using ambient aerosol as a test agent, or using controlled negative pressure to measure the volumetric leak rate. Appropriate instrumentation is required to quantify respirator fit in QNFT.

Pierre Construction Group uses (QLFT) fit-testing for all employees. Pierre Construction Group makes sure those employees are fit tested at the following times with the same make, model, style, and size of respirator that will be used:

- Before any of our employees are required to use any respirator with a negative or positive pressure tight-fitting face piece;
- Whenever a different respirator face piece (size, style, model, or make) is used;
- At least annually;

- Whenever the employee reports, or our company, PLHCP, supervisor, or Safety Director makes visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight; and
- When the employee, subsequently after passing a QNFT, notifies
  Pierre Construction Group, Safety Director, supervisor, or PLHCP that
  the fit of the respirator is unacceptable. That employee will be retested
  with a different respirator face piece.

Employees must pass the fit test protocols and procedures contained in 29 CFR 1910.134 Appendix A:

 QLFT (Only used to fit test negative pressure air-purifying respirators that must achieve a fit factor of 100 or less. May be used to test tightfitting atmosphere-supplying respirators and tight-fitting powered airpurifying respirators if tested in the negative pressure mode); or

## E. Proper Use Procedures

Once the respirator has been properly selected and fitted, its protection efficiency must be maintained by proper use in accordance with 29 CFR 1910.134(g). Pierre Construction Group ensures with written procedures that respirators are used properly in the workplace. Our proper respirator use procedures are:

# 1. Face piece Seal Protection

Do not permit respirators with tight-fitting face pieces to be worn by employees who have:

- Facial hair that comes between the sealing surface of the face piece and the face or that interferes with valve function; or
- Any condition that interferes with the face-to-face piece sealer valve function.
- If an employee wears corrective glasses or goggles or other personal protective equipment, ensure that such equipment is worn in a manner that does not interfere with the seal of the face piece to the face of the user.
- For all tight-fitting respirators, ensure that employees perform a
  user seal check each time they put on the respirator using the
  procedures in 29 CFR 1910.134 Appendix B-1 (User Seal
  Check Procedures) or procedures recommended by the
  respirator manufacturer that you can demonstrate are as
  effective as those in Appendix B-1.

# F. Continuing Respirator Effectiveness

Appropriate surveillance must be maintained of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, reevaluate the continued effectiveness of the respirator.

Ensure that employees leave the respirator use area:

- To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use; or
- To replace the respirator
- If the employee detects changes in breathing resistance, or leakage of the face piece, replace or repair the respirator before allowing the employee to return to the work area.

#### G. Maintenance and Care Procedures

In order to ensure continuing protection from respiratory protective devices, it is necessary to establish and implement proper maintenance and care procedures and schedules. A lax attitude toward maintenance and care will negate successful selection and fit because the devices will not deliver the assumed protection unless they are kept in good working order.

## 1. Cleaning & Disinfecting

Pierre Construction Group provides each respirator user with a respirator that is clean, sanitary, and in good working order. All dust masks are disposable and employees are taught to dispose of masks at the end of each shift or more frequently if needed.

# 2. Storage

Storage of respirators must be done properly to ensure that the equipment is protected and not subject to environmental conditions that may cause deterioration. We ensure that respirators are stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals.

#### 3. Inspection

In order to assure the continued reliability of respirator equipment, it must be inspected on a regular basis. Our dust masks are inspected before each use. After they are used they are disposed of.

Any one of our respirator inspections includes a check:

 For respirator function, tightness of connections, and the condition of the various parts including, but not limited to the head straps.

# 4. Repairs / Discarding

Respirators that fail an inspection or are otherwise found to be defective are removed from service, and disposed of. We make no repairs to our dust masks.

## H. Training

The most thorough respiratory protection program will not be effective if employees do not wear respirators, or if wearing them, do not do so properly. The only way to ensure that our employees are aware of the purpose of wearing respirators, and how they are to be worn is to train them. Simply put, employee training is an important part of the respiratory protection program and is essential for correct respirator use.

Our training program provided by our Safety Director is two-fold; it covers both the:

- Respiratory hazards to which our employees are potentially exposed during routine operations
- Proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance.

Both training parts are provided prior to requiring an employee to use a respirator in our workplace. However, if an employee has received training within 12 months addressing the seven basic elements of respiratory protection (see "Seven basic elements" below) and Pierre Construction Group and the employee can demonstrate that he/she has knowledge of those elements, then that employee is not required to repeat such training initially.

Yet, we do require all of our employees to be retrained when the following situations occur:

- Changes in the workplace or the type of respirator render previous training obsolete;
- Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or
- Any other situation arises in which retraining appears necessary to ensure safe respirator use.

#### I. Seven Basic Elements

Our employees are trained sufficiently to be able to demonstrate knowledge of at least these seven elements:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
- What the limitations and capabilities of the respirator are.
- How to use the respirator effectively.
- How to inspect, put on, remove, use, and check respirator, visually.
- What the procedures are for maintenance and storage of the respirator.
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
- The general requirements of 29 CFR 1910.134:
  - Develop a written program;
  - Properly select respirators;
  - Evaluate respirator use;
  - Correct deficiencies in respirator use;
  - Conduct medical evaluations;
  - Provide for the maintenance, storage, and cleaning of respirators; and
  - Retain and provide access to specific records.

The basic advisory information on respirators, as presented below is provided by our Safety Director in any written or oral format, to employees who wear respirators when such use is not required by the regulations or by our company:

• Information for employees using respirators when not required under the standard:

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

- Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
- Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
- Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
- Keep track of your respirator so that you do not mistakenly use someone else's respirator.

# J. Program Evaluation

It is inherent in respirator use that problems with protection, irritation, breathing resistance, comfort, and other respirator-related factors occasionally arise in most respirator protection programs. Although it is not possible to eliminate all problems associated with respirator use, we try to eliminate as many problems as possible to improve respiratory protection and encourage employee acceptance and safe use of respirators.

Our annual review involves the following:

- Conducting evaluations of the workplace as necessary to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective.
- Regularly consulting employees required to use respirators to assess their views on program effectiveness and to identify any problems. Any problems that are identified during this assessment must be corrected.
   Factors to assess include, but are not limited to:
  - Respirator fit (including the ability to use the respirator without interfering with effective workplace performance)
  - Appropriate respirator selection for the hazards to which the employee is exposed
  - Proper respirator use under the workplace conditions the employee encounters
  - Proper respirator maintenance

# Appendix C to Sec. 1910.134: OSHA Respirator Medical Evaluation Questionnaire (Mandatory)

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.
To the employee:
Can you read (circle one): Yes/No
Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.
Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).
1. Today's date:
2. Your name:
3. Your age (to nearest year):
4. Sex (circle one): Male/Female
5. Your height: ft in.
6. Your weight: lbs.
7. Your job title:
8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code):
9. The best time to phone you at this number:
10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes/No
<ul> <li>11. Check the type of respirator you will use (you can check more than one category):</li> <li>a N, R, or P disposable respirator (filter-mask, non-cartridge type only).</li> <li>b Other type (for example, half- or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus).</li> </ul>
12. Have you worn a respirator (circle one): Yes/No
If "yes," what type(s):
Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").
1. Do you <i>currently</i> smoke tobacco, or have you smoked tobacco in the last month: Yes/No

- 2. Have you *ever had* any of the following conditions? a. Seizures (fits): Yes/No

- b. Diabetes (sugar disease): Yes/No
- c. Allergic reactions that interfere with your breathing: Yes/No
- d. Claustrophobia (fear of closed-in places): Yes/No
- e. Trouble smelling odors: Yes/No
- 3. Have you *ever had* any of the following pulmonary or lung problems?
  - a. Asbestosis: Yes/Nob. Asthma: Yes/No
  - c. Chronic bronchitis: Yes/No
  - d. Emphysema: Yes/No
  - e. Pneumonia: Yes/No
  - f. Tuberculosis: Yes/No
  - g. Silicosis: Yes/No
  - h. Pneumothorax (collapsed lung): Yes/No
  - i. Lung cancer: Yes/No
  - j. Broken ribs: Yes/No
  - k. Any chest injuries or surgeries: Yes/No
  - 1. Any other lung problem that you've been told about: Yes/No
- 4. Do you *currently* have any of the following symptoms of pulmonary or lung illness?
  - a. Shortness of breath: Yes/No
  - b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
  - c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
  - d. Have to stop for breath when walking at your own pace on level ground: Yes/No
  - e. Shortness of breath when washing or dressing yourself: Yes/No
  - f. Shortness of breath that interferes with your job: Yes/No
  - g. Coughing that produces phlegm (thick sputum): Yes/No
  - h. Coughing that wakes you early in the morning: Yes/No
  - i. Coughing that occurs mostly when you are lying down: Yes/No
  - j. Coughing up blood in the last month: Yes/No
  - k. Wheezing: Yes/No
  - 1. Wheezing that interferes with your job: Yes/No
  - m. Chest pain when you breathe deeply: Yes/No
  - n. Any other symptoms that you think may be related to lung problems: Yes/No
- 5. Have you *ever had* any of the following cardiovascular or heart problems?
  - a. Heart attack: Yes/No
  - b. Stroke: Yes/No
  - c. Angina: Yes/No
  - d. Heart failure: Yes/No
  - e. Swelling in your legs or feet (not caused by walking): Yes/No
  - f. Heart arrhythmia (heart beating irregularly): Yes/No
  - g. High blood pressure: Yes/No
  - h. Any other heart problem that you've been told about: Yes/No
- 6. Have you ever had any of the following cardiovascular or heart symptoms?
  - a. Frequent pain or tightness in your chest: Yes/No
  - b. Pain or tightness in your chest during physical activity: Yes/No
  - c. Pain or tightness in your chest that interferes with your job: Yes/No
  - d. In the past two years, have you noticed your heart skipping or missing a beat: Yes/No
  - e. Heartburn or indigestion that is not related to eating: Yes/No
  - f. Any other symptoms that you think may be related to heart or circulation problems: Yes/No
- 7. Do you *currently* take medication for any of the following problems?
  - a. Breathing or lung problems: Yes/No

b. Heart trouble: Yes/Noc. Blood pressure: Yes/Nod. Seizures (fits): Yes/No

8. If you've used a respirator, have you *ever had* any of the following problems? (If you've never used a respirator, check the following space and go to question 9:)

a. Eye irritation: Yes/No

b. Skin allergies or rashes: Yes/No

c. Anxiety: Yes/No

- d. General weakness or fatigue: Yes/No
- e. Any other problem that interferes with your use of a respirator: Yes/No
- 9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes/No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

- 10. Have you *ever lost* vision in either eye (temporarily or permanently): Yes/No
- 11. Do you *currently* have any of the following vision problems?
  - a. Wear contact lenses: Yes/No
  - b. Wear glasses: Yes/No
  - c. Color blind: Yes/No
  - d. Any other eye or vision problem: Yes/No
- 12. Have you ever had an injury to your ears, including a broken ear drum: Yes/No
- 13. Do you *currently* have any of the following hearing problems?
  - a. Difficulty hearing: Yes/No
  - b. Wear a hearing aid: Yes/No
  - c. Any other hearing or ear problem: Yes/No
- 14. Have you ever had a back injury: Yes/No
- 15. Do you *currently* have any of the following musculoskeletal problems?
  - a. Weakness in any of your arms, hands, legs, or feet: Yes/No
  - b. Back pain: Yes/No
  - c. Difficulty fully moving your arms and legs: Yes/No
  - d. Pain or stiffness when you lean forward or backward at the waist: Yes/No
  - e. Difficulty fully moving your head up or down: Yes/No
  - f. Difficulty fully moving your head side to side: Yes/No
  - g. Difficulty bending at your knees: Yes/No
  - h. Difficulty squatting to the ground: Yes/No
  - i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes/No
  - j. Any other muscle or skeletal problem that interferes with using a respirator: Yes/No

Part B Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1. In your present job, are you working at high altitudes (over  $5{,}000$  feet) or in a place that has lower than normal amounts of oxygen: Yes/No

If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when

you're working under these conditions: Yes/No 2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals: Yes/No If "yes," name the chemicals if you know them: 3. Have you ever worked with any of the materials, or under any of the conditions, listed below: a. Asbestos: Yes/No b. Silica (e.g., in sandblasting): Yes/No c. Tungsten/cobalt (e.g., grinding or welding this material): Yes/No d. Beryllium: Yes/No e. Aluminum: Yes/No f. Coal (for example, mining): Yes/No g. Iron: Yes/No h. Tin: Yes/No i. Dusty environments: Yes/No j. Any other hazardous exposures: Yes/No If "yes," describe these exposures:\_\_\_\_\_\_ 4. List any second jobs or side businesses you have: 5. List your previous occupations: 6. List your current and previous hobbies: 7. Have you been in the military services? Yes/No If "yes," were you exposed to biological or chemical agents (either in training or combat): Yes/No 8. Have you ever worked on a HAZMAT team? Yes/No

9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications): Yes/No

If "yes," name the medications if you know them:\_\_\_\_\_

- 10. Will you be using any of the following items with your respirator(s)?
  - a. HEPA Filters: Yes/No
  - b. Canisters (for example, gas masks): Yes/No
  - c. Cartridges: Yes/No
- 11. How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you)?:
  - a. Escape only (no rescue): Yes/No
  - b. Emergency rescue only: Yes/No
  - c. Less than 5 hours *per week*: Yes/No
  - d. Less than 2 hours *per day:* Yes/No
  - e. 2 to 4 hours per day: Yes/No

12 During the maried you are using the magnington(s) is your work offert.	
12. During the period you are using the respirator(s), is your work effort:	
a. <i>Light</i> (less than 200 kcal per hour): Yes/No  If "yes," how long does this period last during the average shift:hrs	mins
in yes, now long does and period last during the average sinteins	
Examples of a light work effort are <i>sitting</i> while writing, typing, drafting, or performing <i>standing</i> while operating a drill press (1-3 lbs.) or controlling machines.	ng light assembly work; or
b. <i>Moderate</i> (200 to 350 kcal per hour): Yes/No If "yes," how long does this period last during the average shift:hrs	mins.
Examples of moderate work effort are <i>sitting</i> while nailing or filing; <i>driving</i> a truck of while drilling, nailing, performing assembly work, or transferring a moderate load (ab <i>walking</i> on a level surface about 2 mph or down a 5-degree grade about 3 mph; or <i>pus</i> heavy load (about 100 lbs.) on a level surface.	out 35 lbs.) at trunk level;
3. <i>Heavy</i> (above 350 kcal per hour): Yes/No If "yes," how long does this period last during the average shift:hrs	mins.
Examples of heavy work are <i>lifting</i> a heavy load (about 50 lbs.) from the floor to your a loading dock; <i>shoveling</i> ; <i>standing</i> while bricklaying or chipping castings; <i>walking</i> with a heavy load (about 50 lbs.).	
13. Will you be wearing protective clothing and/or equipment (other than the respirator respirator: Yes/No	or) when you're using your
If "yes," describe this protective clothing and/or equipment:	
14. Will you be working under hot conditions (temperature exceeding 77 deg. F): Yes	/No
15. Will you be working under humid conditions: Yes/No	
16. Describe the work you'll be doing while you're using your respirator(s):	<u> </u>
17. Describe any special or hazardous conditions you might encounter when you're us example, confined spaces, life-threatening gases):	ing your respirator(s) (for
18. Provide the following information, if you know it, for each toxic substance that you using your respirator(s):	u'll be exposed to when you're
Name of the first toxic substance:  Estimated maximum exposure level per shift:  Duration of exposure per shift:  Name of the second toxic substance:  Estimated maximum exposure level per shift:  Duration of exposure per shift:  Name of the third toxic substance:  Estimated maximum exposure level per shift:	
Duration of exposure per shift:	

f. Over 4 hours per day: Yes/No

The name of any oth	her toxic substances that you	ı'll be exposed to while us	ing your respirator:

<sup>19.</sup> Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security):

# Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

#### You should do the following:

- 1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
- 2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
- 3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
- 4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Employee Signature	
Employee Signature	
Employee Signature	
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Employee Signature	
Employee Signature	

# XVIII. FLAMMABLE AND COMBUSTIBLE LIQUIDS COMPLIANCE PROGRAM

# A. Purpose

This Flammable & Combustible Liquids Compliance Program has been written to protect employees who handle, store, and use or work around flammable and combustible liquids subject to the OSHA Flammable & Combustible Liquids Standard, 29 CFR 1910.106. We intend for the information here to facilitate proper design, installation, storage, usage, and handling measures necessary to prevent fire and explosion.

#### B. Persons Affected

Some of our operations are affected by flammable and combustible liquids. however, we use these materials in small amounts, typically 5 gallons or less. The following persons have specific responsibilities under this program:

Title	Department	Responsibility
Warehouse Manager	Warehouse	Use and Storage
Field Supervisors	Construction	Use and Storage

# C. Operations Involving Flammable or Combustible Liquids

Our company operations involve flammable or combustible liquids stored as follows:

Operation	Identity & Class	Container Type/Cap.	Storage Location
Fueling Portable Equipment	Flammable (Gasoline & Diesel)	DOT Approved	Warehouse (Outside)
Forklift Operation	Flammable (Propane)	DOT Approved Compressed Fuel	Warehouse (Outside) in Secure Storage Container
Painting	Flammable & Combustible (Spray Paint)	Metal Cans	Warehouse (Inside) Behind 2 hour fire rated wall (Flammable Storage Cabinet)

We store flammable liquids in flammable storage cabinets. Only those cabinets meeting the requirements established in 29 CFR 1910.106 are used. Our cabinets are properly vented.

All electrical equipment is properly installed so that flammables and combustibles are not exposed to sparks or flames.

#### D. Work Practice Controls

We require our employees to take the following work practice control measures to reduce employee injury and illness:

- Store flammable and combustible materials properly
- Do not smoke when using flammable and combustible materials
- Properly dispose of used material
- Do not permit open flames and smoking in flammable or combustible liquid storage areas.
- Protect against tampering or trespassers where necessary and keep storage areas free of weeds, debris, and other combustible material not necessary to the storage.
- Take adequate precautions to prevent the ignition of flammable vapors.
   Sources of ignition include, but are not limited to: open flames;
   lightning; smoking; cutting and welding; hot surfaces; frictional heat;
   static, electrical, and mechanical sparks; spontaneous ignition,
   including heat-producing chemical reactions; and radiant heat.
- Keep aisles adequate and unobstructed so that personnel and fire protection equipment can reach flammable or combustible liquid use, handling, and storage areas.
- Keep grounds around buildings and unit operating areas free of grass, weeds, trash, or other unnecessary combustible materials. This is especially important where Propane Cylinders are stored.
- Provide means to dispose promptly and safely of leakage or spills where flammable or combustible liquids are used or handled, except in closed containers.
- Use class I liquids only where there are no open flames or other sources of ignition within the possible path of vapor travel.
- All fuel containers will be metal and have a flash arrestor and selfclosing lid.

# **INSIDE A BUILDING:**

- Do not store flammable or combustible liquids so as to limit use of exits, stairways, or areas used for egress of people.
- Do not store flammable or combustible liquids in office occupancies, except if required for maintenance and operation of a building and/or equipment. Such storage must be kept in closed metal containers

inside a storage cabinet or safety cans or in an inside storage room not having a door that opens into that portion of the building used by the public.

- Remove leaking containers from all locations and take them to a storage room or to a safe location outside the building and transfer the contents to an undamaged container.
- Do not store material which creates a fire hazard to the flammable or combustible liquids in the same area.

#### E. Maintenance Procedures

Our maintenance and operating procedures control leakage and prevent accidental escape of flammable or combustible liquids. Spills are cleaned up promptly.

We permit hot work, such as welding or cutting operations, use of sparkproducing power tools, and chipping operations, only under supervision of an individual in responsible charge.

All fire protection facilities shall be adequately maintained to make sure they are always in satisfactory operating condition, and they will serve their purpose in time of emergency.

# F. Emergency Situations

For information on fire emergencies please reference our fire Prevention and EAP plans.

Our Safety Director will investigate and take steps to prevent any emergency or accident similar to any that has occurred. For more details, see our Accident Reporting & Investigation Plan.

Our company performs the following inspections and reviews:

Inspection Type	Description	Frequency	Responsibility
Periodic	Fire Protection (Extiguishers) and Proper Storage of Flammable and Combustable Materials.	Monthly	Warehouse Manager

Examples for inspections include:

- Fire protection facilities inspection and test--Periodically inspect and test to ensure facilities are in satisfactory operating condition and will serve their purpose in emergency.
- Hot work inspection--Before hot work operations, an individual in charge inspects the hot work area to ensure it is safe for the work and that safe procedures will be followed for the work specified.
- Grounding and bonding--Before handling containers and using tanks, check for proper grounding and bonding of containers and tanks where necessary.

Warehouse Manager are responsible for maintaining all inspection records.

# G. Labeling and Posting

We require that the following signs/notices be posted conspicuously:

Sign(s)	Locations
Flammable – No Smoking – Keep Fire Away	All Flammable & Combustible Storage Areas
,	

# H. Training

Under no circumstances may an employee use, handle, or store flammable or combustible liquids until he/she has successfully completed Pierre Construction Group's training program under the Flammable & Combustible Liquids Compliance Program. This includes all new employees, regardless of claimed previous experience. Individuals in the warehouse department will also receive training on conducting inspections, proper storage, disposal and labels required.

#### ADDITIONAL TRAINING INCLUDES:

Hazard communication labels according to 29 CFR 1910.1200, on storage containers, as appropriate. Flammable - Keep Fire Away" on storage cabinets for flammable and combustible portable containers. The Safety Director will identify new trainees and those existing employees who need retraining.

Training is done using lecture and discussion. Through training we ensure that employees are knowledgeable in how to protect themselves, others and the environment. When an employee has an accident or near miss or some unsafe operating procedure is identified, we retrain that employee. In some cases, it may be necessary to take disciplinary action. Our disciplinary procedures are identified in our "Corporate Policies and Procedures" section.

## I. Program Evaluation

It is inherent that problems may occasionally arise in this Flammable & Combustible Liquids Compliance Program. Although we may not be able to eliminate all problems, we try to eliminate as many problems as possible to improve employee protection and encourage employee safe practices. We can eliminate problems effectively by having our Safety Director thoroughly evaluate, and as necessary, revise our program.

Our program evaluation, performed annually by our Safety Director, involves the following:

 Regularly consulting employees to assess the employees' views on program effectiveness and to identify any problems. Any problems that are identified during this assessment must be corrected.