



CAS Steel Erectors, LLC  
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# FIELD EMPLOYEE POLICY MANUAL

## **WELCOME TO CAS STEEL ERECTORS, LLC**

To Our Field Employees:

It is our pleasure to personally welcome you to CAS Steel Erectors, LLC. We are committed to providing you with a safe working environment, stable long-term employment (whenever possible), opportunities for advancement and the highest personal satisfaction.

CAS Steel Erectors, LLC has been in business for over a decade and has enjoyed much success in the construction industry. If we are to build on these successes, we need dedicated, hardworking employees who are committed to serving the client and doing a job right, the first time. We know that this attitude will result in safe job sites, quality workmanship and ultimately, client satisfaction.

We encourage you to strive for constant improvement...in everything you do...every day! For example, by suggesting ways you/we could be more efficient or by anticipating problems and accidents before they happen, you will be helping CAS Steel Erectors become the lowest cost, on-time provider of steel erection construction services in our market area. Being the most efficient leads to job security and greater financial rewards for all of us.

So once again, welcome to our team. We look forward to a long and mutually rewarding working relationship.

Sincerely,  
CAS STEEL ERECTORS, LLC  
Chris Smith, Manager  
Rick Phillips, Manager  
Jacquie Phillips, Manager

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## **1.0 INTRODUCTION**

### **1.1 FORWARD**

This Field Employee Policy Manual has been prepared to inform you of our basic employee policies and safety rules that are applicable to all CAS Steel Erectors, LLC field employees. The employee policies and safety rules in this manual are necessary to promote fairness and consistency within the company as well as safety on our job sites. During your orientation period, many of the policies and procedures found in this manual will be reviewed with you. If you need additional information or have questions regarding the policies and procedures after your orientation period, see your Project Superintendent and/or Supervisor for assistance. As an employee of CAS Steel Erectors, LLC you will be provided with a copy of this manual. It is your responsibility to become familiar with its contents and it should be kept nearby at all times, so that you can refer to it as needed.

#### **IMPORTANT NOTICE**

The information found in this Field Employee Policy Manual (the "Manual") is not intended to be a contract of employment or a warranty of benefits with CAS Steel Erectors, LLC (the "Company"). CAS Steel Erectors, LLC reserves the right to change, amend or discontinue this Manual in part or whole, unilaterally, with or without prior notice. Any and all previous verbal and/or written policies and procedures are null and void.

### **1.2 MISSION STATEMENT**

More important than CAS Steel Erectors dedication to providing the construction industry with competent and professional services, is our commitment to providing our employees a safe and healthy work environment. Our Mission Statement is simply:

"TO PROVIDE OUR CLIENTS WITH SERVICES AT THE HIGHEST LEVEL OF PROFESSIONAL ABILITY,  
QUALITY, EMPLOYEE SAFETY AND INTEGRITY"

## **2.0 EMPLOYMENT AND GENERAL POLICIES**

### **2.1 EQUAL EMPLOYMENT OPPORTUNITY**

It is our policy to provide equal employment opportunity without regard to race, color, sex, age, handicap, religion, national origin or marital status.

This policy applies to all areas of employment, including recruitment, hiring, training and development, promotion, transfer, termination, layoff, compensation and all other conditions and privileges of employment in accordance with applicable federal, state and local laws.

If you ever feel that CAS Steel Erectors, LLC or any of its personnel are not acting according to these standards or equal employment opportunity, you are encouraged to report the matter in writing to your immediate supervisor with a copy to the President. Any incidents which are reported to CAS Steel Erectors, LLC will be

investigated immediately and acted upon as warranted. All persons making such complaints will be protected from retaliation or other adverse actions resulting from their complaints.

We are fully committed to this concept and to obtaining the cooperation and understanding of this effort of our employees.

## **2.2 SEXUAL HARASSMENT**

It is CAS Steel Erectors, LLC policy that no form of sexual harassment will be tolerated. Any employee who feels that he or she has been subjected to sexual harassment should report in writing to their immediate supervisor. If, however, the sexual harassment involves the immediate supervisor, the aggrieved employee should report in writing to the President. Any incident of sexual harassment will be considered a serious form of misconduct and will be treated accordingly.

Any employee, supervisor or manager who is found, after appropriate investigation, to have engaged in harassment of another employee will be subject to appropriate disciplinary action, depending on the circumstances, up to and including termination.

## **2.3 THE AMERICANS WITH DISABILITIES ACT (ADA)**

The Americans with Disabilities Act (ADA) prohibits discrimination against disabled applicants and employees if they are qualified to perform the essential functions of the job with (or without) a reasonable accommodation. In other words, ADA prohibits discrimination against a “qualified individual with a disability” in regard to job applications, hiring, advancement, discharge, compensation, training or other terms, conditions or privileges of employment. The current use of drugs is not a covered disability.

CAS Steel Erectors, LLC adheres to the rules and regulations set forth by the ADA.

## **2.4 EMPLOYMENT AT WILL**

It is our policy that:

Your employment with CAS Steel Erectors, LLC is “at will” for an indefinite period and may be terminated at any time by you or the Company for any reason with or without cause.

## **2.5 TERMINATION OF EMPLOYMENT**

CAS Steel Erectors, LLC is committed to providing you with satisfying and secure employment. However, as conditions dictate, we may be forced to reduce our work force through layoffs or termination. CAS Steel reserves the right to terminate any employee at any time, within State and Federal regulations for “at will” employment.

Discharge can be for any reason including employee misconduct, unsatisfactory job performance and permanent reductions in our work force.

Employees terminated because of permanent reduction of the work forces will be given advance notice of the termination, whenever possible.

Any employee who is absent from work without having notified his immediate supervisor of the absence or the reason for it, will be considered as having resigned after the third consecutive day of absence. Any employee

who is absent for more than 28 consecutive days with or without excuse will be terminated, except when Family and Medical Leave is taken as described in section 2.22 of this manual.

Termination and discharge procedures are only guidelines and do not constitute a legal contract between CAS Steel Erectors, LLC and its employees. In addition, specified grounds for termination are not all-inclusive since CAS Steel Erectors, LLC has the right to terminate employment for any reason.

## **2.6 RESIGNATION**

Employees who intend to resign from employment with CAS Steel Erectors, LLC are expected to give written notice two weeks prior to their resignation. Written notices are to be given to your Project Superintendent. Failure to work a two-week notice may prohibit future employment with CAS Steel Erectors, LLC and result in forfeiture of any applicable benefits.

## **2.7 LAYOFFS**

CAS Steel is committed to providing you with satisfying and secure employment. Unfortunately, when business or economic conditions dictate, we may be forced to consider reducing our work force by means of temporary or permanent layoffs. When a layoff is expected to be temporary (4 weeks or less), a temporary layoff will be given. If layoffs become necessary, we take the following criteria into consideration:

1. Your job performance
2. Your attendance records.
3. Your length of service
4. Our job requirements

## **2.8 WORKING HOURS**

Normal working hours are typically 7 am to 5:30 pm with a 10-minute coffee break in the morning and one in the afternoon, as well as a 30-minute lunch period. Sometimes the hours are adjusted due to daylight time and/or to accommodate the hours of a particular jobsite so your Superintendent may change these hours to suit the varying conditions. Employees are not permitted on job sites at times other than assigned working hours.

If you are ill, have an emergency, or special problem and cannot report to work on time, you should call your supervisor before 7:30 am. Failure to do so will result in one written warning and termination if repeated. Excessive absenteeism or tardiness without reasonable justification may be cause for termination.

## **2.9 PAYROLL PERIOD**

Our work week runs from Monday through Friday. Paychecks are issued every Friday. However, you may on occasion receive your paycheck a day early on a Thursday, but the designated pay date is every Friday, so please do not count on/expect it earlier than Friday. You are paid every Friday for the hours worked the "previous" full week of Sunday-Saturday. If you start work in the middle of a pay period, you will be paid for the day/days that you worked during that period. We take deductions from your paycheck as required by Federal and State laws. Before you begin your first day of work, we will ask you to sign various forms authorizing us to make these deductions. With exception of Federal and State Withholding Tax and FICA (Social Security), all deductions are strictly voluntary, and we cannot make them without your written permission. For your protection, we will not issue your paycheck to anyone but you, unless you notify us otherwise. In that circumstance the individual will need to present written authorization signed by you to receive your paycheck or paystub. We really prefer not to give to anyone else at all.

## 2.10 CONDUCT

CAS Steel Erectors, LLC has invested much time in developing an image of pride and professionalism in the construction industry. As a representative of CAS Steel Erectors, you are a part of this image and we encourage you to take pride in your own personal image through your actions, language and appearance.

### RULES OF CONDUCT

It is impossible to devise a set of rules that would meet every possible situation that could arise. The rules listed below, therefore, are not all encompassing; they are intended to be examples of the **type of misconduct** that will not be tolerated. In general, you are expected to use common sense, sound judgement, respect and integrity on jobsites and dealing with others. Below are specific examples that won't be tolerated:

1. Abusive or profane language, harassing remarks or disrespectful behavior toward your supervisor, other CAS Steel employees, employees of other contractors, the general public, or any representative of the customer.
2. Providing false information to gain employment. Falsifying personnel or employee records.
3. Willful misuse, damage or destruction of company property, customer property, and equipment or materials.
4. Theft of company property or materials.
5. Insubordination or disobedience.
6. Fighting, horseplay or unnecessary shouting.
7. Threatening or intimidating other workers.
8. Creating or contributing to unsanitary, unsafe or poor housekeeping conditions.
9. Playing radios on CAS Steel Erectors job sites.
10. Gambling on CAS Steel Erectors job sites.
11. Misuse of Cas Steel Erectors funds or vehicles.
12. Wasting time or loitering during employee work hours.
13. Violation of CAS Steel Erectors, LLC Substance Abuse Policy as summarized in this manual.
14. Possession or handling of weapons or firearms of any type on CAS Steel Erectors job sites.
  
15. Distribution or posting of literature of any kind on CAS Steel Erectors job sites.
16. Unauthorized use of the customer's facilities and equipment. Such as: telephones, rest rooms, cafeterias, parking lots, break rooms, cleaning supplies, equipment and elevators.

## 2.11 TRANSPORTATION AND PARKING

Employees are expected to furnish their own transportation to and from the job site. In some instances, CAS Steel Erectors, LLC will permit you to park personal vehicles on the jobsite. However, parking of personal vehicles on the jobsite will be at your own risk. CAS Steel assumes no liability for damaged or stolen vehicles while parked on the jobsite.

## 2.12 TOOLS AND EQUIPMENT

Cas Steel Erectors, LLC will supply you with all of the necessary power tools and equipment to perform your assigned tasks. Craftsmen are expected to furnish their own set of properly maintained hand tools. At the end of each workday Company owned tools are to be returned to the job storage trailer or other assigned storage area. CAS Steel Erectors assumes no responsibility for privately owned tools, even if they are allowed to be stored in a CAS Steel Erectors storage area. Personal use of CAS Steel Erectors tools, equipment and materials are



strictly prohibited. The employees of CAS Steel Erectors are not to use the tools and equipment of any contractor or subcontractor unless otherwise instructed by the Project Superintendent.

### **2.13 COMPANY VEHICLES**

No employee will be authorized to operate company vehicles until their motor vehicle record has been obtained and reviewed by the Safety Director. Company vehicles should only be used for business purposes. (See section 4.6.26 for Motor Vehicle Safety Rules and Procedures)

### **2.14 JOB PERFORMANCE**

CAS Steel Erectors is committed to providing quality construction services to all of our clients. This requires craftsmen and workers who are dedicated to quality workmanship. Incomplete, messy or otherwise poor work habits will not be tolerated. Employees who display inadequate job performance will receive one warning and termination may result if significant improvements are not made.

### **2.15 TELEPHONE USAGE**

CAS Steel Erectors, LLC is a place of business. The telephones, therefore, are for business calls only. Personal phones are to be kept in your vehicle. No personal phones are permitted on the jobsite by CAS Steel. If you have a family emergency and/or a family member that is ill, they may call the CAS Steel Office and/or your Superintendent and all information will be passed along to the employee in a timely manner.

### **2.16 WORK ASSIGNMENTS**

Most of the time you will be working your regularly assigned position at CAS Steel Erectors. On occasion, construction requirements or emergency situations will require us to temporarily reassign you to another position. Our ability to reassign you under these circumstances helps us to maintain flexibility. We can increase

your/our efficiency when we can place our resources, including personnel, in places where they are most needed.

We ask that you be flexible with this and know that shifting assignments also benefits you personally. Not only does it provide you with a change of pace, but also it allows you to qualify for a broader range of positions. If you can perform several different assignments, you will be even more valuable to CAS Steel Erectors and a more attractive candidate for advancement.

### **2.17 JURY DUTY LEAVE**

So that you may fulfill your civic responsibilities, you will be excused from work whenever you are called for jury duty. Please notify your superintendent immediately upon notice of jury duty.

### **2.18 MILITARY LEAVE**

If you are a member of the Armed Forces Reserves or National Guard and are required to serve in active duty or participate in training, you will be granted a leave of absence for the duration of your active duty or training period. There is no monetary income provided during that leave of absence through CAS Steel. We ask that you please notify your supervisor of any such obligation as far in advance as possible so that any necessary

arrangements may be made. Failure to return to work upon completion of your military duties will be deemed a voluntary termination of employment.

## **2.19 SUMMARY OF SUBSTANCE ABUSE POLICY**

CAS Steel Erectors are concerned about the adverse effects that drugs and alcohol can have upon our employees' safety and health. Alcoholism and the illegal use of drugs lead to increased accidents and medical claims and can lead to the destruction of an employee's health and adversely affect his or her family life.

It is CAS Steel Erectors policy to identify and help those employees with substance abuse problems and to encourage them to seek help on their own. "Applicants" identified as being substance abusers will be denied employment and encouraged to seek help. "Employees" who are identified as being substance abusers will be referred for counseling or rehabilitation as appropriate. However, the possession, use, transfer, manufacture or sale of alcohol, illegal drugs or legal drugs without a valid prescription on CAS Steel Erectors job sites or on Company time, will result in termination.

### COUSELING AND REHABILITATION

Employees are encouraged to voluntarily request counseling or rehabilitation before their substance abuse leads to disciplinary or other work-related problems. A request may be made by contacting your supervisor. No employee will have job security jeopardized by such a good faith request.

### DRUG TESTING OF APPLICANTS

All applicants who have been offered employment with CAS Steel Erectors, LLC will be required to undergo a drug-screening test as part of the hiring process. CAS Steel Erectors will withdraw an offer of employment made to any applicant whose drug screen test reveals the presence of illegal drugs or prescription drugs without a valid prescription.

### TESTING OF EMPLOYEES

Reporting for duty or working with drugs present in the body or while affected by alcohol will be handled as follows:

First Offense – The employee will have the option to enter into a facility designated by CAS Steel Erectors to seek counseling or rehabilitation, as deemed necessary based upon a professional evaluation.

Second Offense – The employee will be terminated.

Drug testing will be required under the following circumstances:

- When an employee is involved in an accident or incident.
- When CAS Steel Erectors has reasonable cause and suspicion to request a drug test.
- When an employee has had a positive drug test and been referred for counseling or rehabilitation under this policy.
- When an employee requests a test (if approved by management).
- When CAS Steel Erectors selects employees on a random basis for a drug-screening test.

- At any such time that CAS Steel Erectors may decide to require all employees at a job site to be drug tested.
- When an employee returns to work from layoff.

Alcohol testing may be required under the following circumstances:

- When an employee is involved in an accident or incident
- When CAS Steel Erectors has reasonable cause and suspicion
- When an employee requests a test (if approved by management)

No employee will be requested to submit to a drug or alcohol screening test unless a Company Official has granted specific authorization for such a test. CAS Steel Erectors intends to utilize the most accurate and reliable testing method available. Failure or refusal by an employee to cooperate with the policy or to submit to such a test when requested, will be grounds for termination of employment.

#### CONFIDENTIALITY

All information concerning medical examinations, drug or alcohol testing results or rehabilitation and treatment of an individual employee, will be treated as confidential information.

#### OFFICIAL SUBSTANCE ABUSE POLICY

This document is only a summary of CAS Steel Erectors official Substance Abuse Policy. The official policy is available to all employees for their review and should be consulted with respect to any specific questions. Neither this Summary nor the official Policy is intended to affect CAS Steel Erector's right to manage its workplace, discipline its employees, guarantee employment or guarantee terms or conditions of employment. No contract for employment either expressed or implied, is created.

### **2.20 WEAPONS POLICY**

The possession, sale, use or concealment of weapons, firearms, ammunition and explosives is strictly prohibited on any CAS Steel Erectors premises. For the purposes of this policy, premises are defined as any land, property, building, structure, vehicle or equipment whether owned, leased or used by CAS Steel Erectors. This policy shall also apply to the personal property and vehicles of employees while on the premises of CAS Steel Erectors. Employees found using, possessing or concealing any of the above-mentioned items will be removed from CAS Steel Erectors premises and will be subject to disciplinary action up to and including termination as deemed appropriate. All persons, their vehicles and personal property are subject to search and inspection prior to entering and while on the premises of CAS Steel Erectors, LLC.

### **2.21 RESOLVING PROBLEMS**

Whenever you have a problem or complaint, we expect you to speak up and communicate directly with us.

You can take the following steps:

1. First talk with your supervisor. He/she is most familiar with you and your job and is, therefore, in the best position to assist you. Since your supervisor works closely with you, he/she is interested in seeing that you are treated fairly and properly.
2. If your supervisor cannot help you resolve the matter, you can speak to the next level of management. He/she will give your problem or complaint prompt consideration.

Remember – it is always best to resolve problems right away. Little problems tend to turn into big problems; facts become confused; resentment and anger builds up. It is always best to get things out in the open before they get out of hand.

## **2.22 FAMILY AND MEDICAL LEAVE**

Under the Family and Medical Leave Act of 1993 (FMLA), CAS Steel Erectors, LLC will provide up to twelve (12) weeks of unpaid leave to employees for certain family and medical reasons who have been employed for at least one year and worked at least 1250 hours during the previous twelve (12) months. Leave will be granted for any of the following reasons: (1) to care for the employee’s child after birth or placement for adoption or foster care; (2) to care for the employee’s spouse, son or daughter, or parent who has a serious health condition; or (3) for a serious health condition that makes the employee unable to perform his or her job.

The employee must ordinarily provide thirty (30) days advance notice when the leave is foreseeable. CAS Steel Erectors will require medical certification to support requests for leave due to serious health conditions and may under certain circumstances require a second or third opinion. Additionally, the employee will be restored to his/her original or equivalent position at the end of the leave. Taking a leave may be denied if the employee fails to meet the requirements. Any questions concerning FMLA leave should be addressed with the personnel department.

## **3.0 BENEFITS FOR HOURLY FIELD EMPLOYEES**

### **3.1 VACATION**

Vacation must be scheduled at least two (2) weeks in advance and must be approved by your supervisor.

### **3.2 HOLIDAYS**

It is the policy of CAS Steel Erectors to observe holidays each year as listed below or determined by CAS Steel Erectors management and job schedule requirements. The main office will publish a schedule of holidays to be observed during each calendar year.

- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving
- Christmas
- New Year’s Day

### **3.3 WORKERS’ COMPENSATION INSURANCE**

Beginning on the first day of employment, each employee is covered by Workers’ Compensation Insurance in accordance with the requirements of State law. This insurance covers the medical costs of injuries or illnesses, which are directly job related. Beginning on the 8<sup>th</sup> day of disability, Workers’ Compensation Insurance provides disability payments for time lost from work, while under doctor’s instructions in such amounts and for such periods of time as established by law.

When injuries are suspected to be fraudulent, CAS Steel Erectors will report such claims of injuries and/or Workers' Compensation claims to the Insurance company, which will be followed by an investigation. Workers' Compensation Insurance claims that are found to be fraudulent will result in termination of the claimant and notification of the proper enforcement authorities. This leaves the claimant responsible for any and all financial responsibilities associated with the false claim.

#### **4.0 SAFETY**

Construction work is known as one of the most dangerous occupations to engage in, but it does not have to be that way. Through a well-planned and properly administered safety program, hazards associated with construction work can be avoided or eliminated. However, in many circumstances your safety and health on the job will be a direct reflection of your actions and your inactions. Therefore, we have developed the following safety responsibilities, rules and procedures to safeguard you and your coworkers as you go about your daily work assignments. As an employee of CAS Steel Erectors, you are required to become familiar with and adhere to these rules and procedures. If you need additional direction on safety procedures consult with your superintendent. CAS Steel Erectors insists on maintaining safe jobsites and we are proud of our safety record. We hope that you will also take pride in your personal safety record and insist on working in a safe environment.

#### **4.1 SAFETY POLICY STATEMENT**

It is the policy of CAS Steel Erectors to provide a safe and healthy place of employment for all employees. It is also our policy to abide by all safety and health regulations as set forth by Federal, State and Local regulatory agencies as they pertain to the construction industry. CAS Steel Erectors will make every reasonable effort in the interest of safety and accident prevention.

#### **4.2 SAFETY RESPONSIBILITIES**

##### **MANAGEMENT RESPONSIBILITIES:**

To meet the requirements of our safety policy, the management of CAS Steel Erectors, LLC will:

1. Establish and administer any required or necessary safety and health programs, rules and policies.
2. Implement and enforce the safety and health programs, rules, policies or standards as established by governmental regulatory agencies or by CAS Steel Erectors, LLC.
3. Discipline any employee willfully disregarding the safety and health programs, rules, policies and standards as established by governmental regulatory agencies or by CAS Steel Erectors.
4. Require all subcontractors to abide by this company's safety policy to the extent possible while working in conjunction with CAS Steel Erectors.
5. Conduct regular safety and health inspections and file reports on each.
6. Investigate or cause to have investigated any/all accidents and file reports on each.
7. Provide safety and health training.
8. Appoint a Safety Director to assist the management of CAS Steel Erectors in meeting their safety and health responsibilities.

##### **EMPLOYEE RESPONSIBILITIES**

To meet the requirements of our safety policy, all employees and subcontractors of CAS Steel Erectors, LLC will:

1. Work in accordance with all safety and health programs, rules, policies and standards as established by Federal, State and Local regulatory agencies or by CAS Steel Erectors.
2. Work in accordance with all legitimate safety practices, rules or policies as posted or instructed.
3. Refrain from any unsafe act that might endanger himself/herself or any other workers.
4. Report any unsafe situation or act to his/her supervisor or to the Safety Director immediately.
5. Assume his/her share of responsibilities.
6. Be a safe workman off the job as well as on the job.

#### **4.3 DISCIPLINARY GUIDELINES**

Any CAS Steel Erector employee who violates written, expressed or implied safety rules or procedures will be subject to disciplinary action in the following manner:

##### FIRST OFFENSE:

The employee shall stop what they are doing and correct the issue immediately. The superintendent shall document this violation along with the corrective action taken on a safety violation form. The superintendent shall request from the safety manager that the worker be re-trained in the area of concern.

##### SECOND OFFENSE:

The employee shall stop what they are doing and correct the issue immediately. If the same worker is caught for the second time performing the same or substantially similar violation, they shall be kicked off the jobsite for the day and/or fined based on the discretion of the superintendent. The superintendent shall document this violation along with the corrective action taken on a safety violation form. The superintendent shall request from the safety manager that the worker be re-trained in the area of concern.

##### THIRD OFFENSE:

The worker shall stop what they are doing and correct the issue immediately. If the same worker is caught for the third time performing the same or substantially similar violation, they shall be kicked off the jobsite for at least 3 working days and/or fined based on the discretion of the superintendent. The superintendent shall document this violation along with the corrective action taken on a safety violation form. The superintendent shall issue a plan on preventing the violation from occurring again to the CAS Safety Manager prior to allowing the worker to return to the jobsite.

Employees who willfully violate safety policy or willfully endanger themselves or other workers may be subject to immediate termination or suspension as deemed necessary by the Project Superintendent and/or Safety manager. Employees who are terminated because of safety policy violations will not be eligible for rehire.

If you should become aware of unsafe conditions or unsafe acts committed by another worker, please inform your supervisor.

#### **SAFETY VIOLATION FINE POLICY**

The superintendent will determine the reprimand method to be issued. Safety violating employees can be fined and/or terminated. If the superintendent decides to issue fines, the following fines should be issued:

<b><u>Hazard Area</u></b>	<b><u>2<sup>nd</sup> Offense</u></b>	<b><u>3<sup>rd</sup> Offense</u></b>
<b>Fall Protection</b>	<b>\$250 (per violation)</b>	<b>\$750 (per violation)</b>
<b>Guardrails</b>	<b>\$100 (per violation)</b>	<b>\$300 (per violation)</b>
<b>Personal Protective Equipment</b>	<b>\$100 (per violation)</b>	<b>\$300 (per violation)</b>
<b>Excavation / Trenching</b>	<b>\$100 (per violation)</b>	<b>\$300 (per violation)</b>
<b>Electrical Hazard</b>	<b>\$100 (per violation)</b>	<b>\$300 (per violation)</b>
<b>Scaffolding</b>	<b>\$100 (per violation)</b>	<b>\$300 (per violation)</b>
<b>Tools / Equipment</b>	<b>\$100 (per violation)</b>	<b>\$300 (per violation)</b>
<b>Crane / Rigging / Signaling</b>	<b>\$100 (per violation)</b>	<b>\$300 (per violation)</b>
<b>Housekeeping</b>	<b>\$100 (per violation)</b>	<b>\$300 (per violation)</b>

#### **4.4 SAFETY MEETINGS**

Safety meetings are held on a weekly basis at each jobsite. These meetings provide an opportunity to discuss specific safety topics, conduct safety training and address project related safety matters. If you have seen any jobsite safety hazards or “Near Miss” accidents during the previous week you are encouraged to bring them up during the safety meetings so that these hazards may be corrected or avoided. All CAS Steel Erectors employees will be required to participate in safety meetings.

#### **4.5 ON-THE-JOB INJURIES, FIRST AID AND MEDICAL TREATMENT**

Report all injuries to your supervisor immediately, even minor injuries. Treatment will be administered, and the incident reported. Should later medical attention be needed, you will have fulfilled your obligations. Failure to report injuries promptly may result in claim denial and/or disciplinary action.

Approval from your superintendent or the safety director is required prior to seeking medical treatment for on-the-job injuries at outside medical facilities, except in emergency circumstances. All outside medical treatment shall be at facilities approved by the Safety Director. If you are injured on the job, your superintendent or his appointed representative will drive you to a medical facility in a company vehicle. Only in emergency conditions should you drive yourself to seek medical attention.

Prior to returning to work after a disabling injury, you must present a medical clearance to your Superintendent from your attending physician.

To ensure that prompt medical attention is available for job related injuries and illnesses, each CAS Steel Erectors jobsite and workplace has a first-aid kit, at least one person who is trained in first aid and a listing of emergency telephone numbers. Prepare yourself for accidents and injuries by learning the location and contents of the first aid kit; the location of the emergency telephone numbers and who at your workplace has first-aid training.

#### **4.6 SAFETY RULES AND PROCEDURES**

##### **4.6.1 COMPRESSED GAS CYLINDERS**

Compressed gas cylinders used to store oxygen, acetylene and many other gases we use on construction sites can be very dangerous when carelessly used, stored or handled. Cylinders that are not handled properly are often dropped, sometimes shearing the valve off causing the broken cylinder to take off like a rocket. Cylinders that are exposed to excessive heat or damage, may explode, causing extensive fire damage and sending fragments of steel in all directions.

To prevent these types of accidents, learn to work safely with compressed gas cylinders through proper storage, handling and use.

**A) Cylinder Storage**

- Cylinders must only be stored in specifically designated storage areas. Cylinders should be stored outside in an area where they will not be exposed to vehicle and equipment damage.

Oxygen cylinders must always be stored at least 20' from flammable gases like acetylene and from combustible materials. Oxygen and acetylene may be stored closer together if a non-combustible barrier having a one-hour fire rating separates them.

- If cylinders must be stored indoors, they must be kept away from stairs, exits, elevators and walkways.
- Store full cylinders separate from empty cylinders and label empty cylinders 'EMPTY' or "MT".
- All cylinders must be stored standing upright with valve caps on and secured to them to prevent them from falling over.
- Store cylinders in a well-ventilated area where they will not be exposed to temperatures in excess of 130 degrees Fahrenheit and away from all sources of ignition.
- A fire extinguisher must be kept within 50' of cylinder storage areas.
- Cylinders should never be secured to building columns or other structural supports.

**B) Cylinder Handling**

- When moving cylinders, always close the valves, remove the regulators and replace the valve caps, unless they are secured to an appropriate cylinder cart.
- When moving cylinders individually by hand, tilt them slightly and roll them on the bottom edge. Never drag or slide cylinders when moving them.
- Handle cylinders carefully. They should not be dropped or allowed to strike other cylinders or objects.
- When hoisting cylinders, always secure them to a pallet, cradle or place in a man basket. Never hoist cylinders by the valve cap or with chokers or magnets.
- Cylinders should never be rolled or used as a roller to move other materials.
- Cylinders should never be transported in the bucket of a front-end loader or backhoe. When transporting cylinders by vehicle, always secure them with valve caps on and in an upright position if possible.

**C) Cylinder Use**

- Always check the label on cylinders before using them. If the label is missing, do not assume what it contains based on the size or color of the cylinder.
- Always use compressed gases for their intended purposes. For example, oxygen should never be substituted for compressed air. Oxygen should not be used to operate pneumatic tools, to dust off your clothes or for ventilation.
- Cylinders should always be used in an upright secured position.



- Damaged or malfunctioning regulators must be removed from service until repaired. Never tamper with valves, and regulators or safety devices on any cylinder. Cylinder valves and regulators should never be lubricated with grease or oil.
- If any acetylene has been stored on its side, it should be allowed to stand vertically for two (2) hours before using it.

Compressed gas cylinder safety is everyone's job because you may be injured or killed due to someone else's carelessness. If you see cylinders being used unsafely, report it to your supervisor immediately.

#### 4.6.2 CONFINED SPACES

OSHA defines a confined space as a space large enough for a person to enter, having limited or restricted means of access or egress, and which is not designed for continuous occupancy. Examples of confined spaces include vats, silos, sewer manholes, tunnels, underground enclosures, ducts, piping, air handling equipment and walls.

There are numerous hazards associated with working in confined spaces including both physical hazards and the potential for hazardous atmospheres. Physical hazards may result from mechanical equipment such as agitators, blenders or fans found in vats or air handlers. Other physical hazards include excessive heat, steam, drowning, and entrapment or engulfment. Atmospheric hazards associated with confined spaces include Oxygen deficiency, toxic gases, flammable gases and explosive gases. Oxygen is reduced in confined spaces by displacement or consumption by other gases or through chemical reactions such as combustion, oxidation, etc. Safe Oxygen levels in confined spaces should be between 19.5%-23.5%. Flammable and explosive vapors may be present in confined spaces from previous storage of flammable liquids, tank coatings or even welding gases.

##### Confined Space Pre-Entry Steps

1. Before entering any confined space, it **must be first evaluated for potential hazards and a site-specific confined space entry plan developed. Consult with your Superintendent and the safety director for assistance prior to beginning work in a confined space.**
2. Use lockouts and tags to prevent accidental start-up of equipment while someone is working in the confined space. Disconnect or shut off and lock out steam, gas, water, power and other lines that convey dangerous substances into the confined space.
3. Empty, purge or flush dangerous substances or atmospheres from the space. If there is a potential for hazardous atmospheres in the confined space test the air in the space using a monitoring device before entering as well as continuously as you work in the space. Test the Oxygen level for combustible and toxic gases prior to entering the space. Test the space from top to bottom. Some gases like propane are heavier than air and will sink to the bottom of the space. Light gases like methane will rise to the top of the space.
4. If hazardous atmospheres are detected, the space must be ventilated with approved blowers to eliminate the hazard. If hazardous atmospheres are present or suspected, sources of ignition shall not be introduced into the space.
5. Prior to entering a confined space an attendant trained in first-aid, CPR and rescue procedures must be assigned. The attendant must remain just outside the entrance to the confined space

6. and must maintain constant communication with those inside the space either visually, or by radio, etc.
7. Rescue equipment needed to affect a rescue including respirators, ropes, harnesses, stretchers, hoists, etc. must be readily available prior to entering the space. When entering confined spaces entrants may be required to wear a harness with lifeline attached to facilitate removal during rescue operations.

#### **4.6.3 ELECTRICAL SAFETY**

In construction we depend on electricity every day to get the job done. Electricity can be deadly but can be used safely if we just take some basic precautions.

##### **A. Electrical Power Cords:**

- Visually inspect cords for damaged insulation and missing ground pins daily. If the cord is damaged, remove it from service immediately by tagging it “out of service”.
- Periodically check the continuity of the conductors in power cords using a receptacle tester or continuity tester.
- Do not drag cords over rough surfaces or sharp edges like metal stud walls. Cords should not be placed in doorways or other pinch points. Protect cords from damage caused by vehicle and equipment traffic.
- Do not use cords to hoist tools or materials. Cords are not designed to be used as ropes. When disconnecting cords, disconnect them at the receptacle instead of jerking them out.
- Never run cords through water or other liquids, instead run cords overhead. Keep cords to the side of corridors and walkways to prevent tripping hazards.
- Only use 3-wire double insulated cords designed for hard or extra hard usage on construction sites. Flat type single insulated cords are not allowed. Never use permanent wiring conductors such as Romex to make an extension cord.
- Disconnect extension cords after work hours to eliminate fire hazards. When not in use, cords should be coiled and stored where they will not be damaged.

##### **B. Power Tools and Equipment:**

- All power tools on construction sites must be grounded or double insulated.
- Tools with damaged casings or damaged cords must be removed from service until repaired.
- Never use power tools while standing in water.
- Only use CAS Steel Erectors power tools, cords and equipment, which have been tested and inspected.

**C. Receptacles:**

- All temporary receptacles on construction sites must be protected by GFCI's (Ground Fault Circuit Interrupters). A GFCI may be built into the outlet or circuit breaker. The GFCI detects leakage current flowing to ground. Once the current leakage reaches five milliamps, the GFCI trips the electrical circuit fast enough to prevent injury to anyone plugged into the circuit.
- When using the permanent outlets in a building that are not protected by GFCI; portable GFCI protection must be used.
- Never remove cover plates from any receptacle unless you have been authorized to do so. Inspect receptacles and GFCI devices for signs of damage prior to using them. Report damaged receptacles so that they may be repaired.

**D. Energized Equipment and Switch Gear:**

- All electrical rooms containing unguarded or unprotected energized equipment must be kept locked at all times, except when qualified and experienced personnel must work on such equipment.
- Electrical rooms or circuit breakers panel boxes containing energized switch gear, which could energize incomplete circuits in the building, must be kept locked and made inaccessible to unqualified persons to prevent accidental throwing of switches.
- Never enter any electrical equipment room or throw any electrical switches unless you have been authorized to do so.

**4.6.4 EQUIPMENT SAFETY**

Forklifts, Skid Steer Loaders, Aerial Lifts, Air Compressors, Backhoes, Cranes, Loaders and Dozers are commonly used in CAS Steel Erectors jobsites. There are some rules that apply to all equipment and additional rules that apply to each different type of equipment.

**A. All Equipment**

- Only trained or experienced personnel that have been authorized to do so, are allowed to operate equipment.
- Before operating any equipment, you must be familiar with the manufacturers' operating instructions and safety warnings.
- Riders are prohibited on all mobile equipment. Remember, 1 Seat = 1 Operator.
- Riders are not allowed in the bucket, on side steps or on any forks of any equipment.
- Before refueling any equipment, turn off engine and allow it to cool if tank is near the engine or exhaust. Never smoke while refueling and always keep a fire extinguisher nearby.

- Always get on and off of the mobile equipment using the three-point contact method to avoid slips and falls. Never jump from equipment.
- Inspect your equipment daily. Check for structural defects, low fluid levels, malfunctioning controls, hydraulic leaks, damaged or missing components, tire wear, low tire pressure and safety features such as lights, horns, mirrors and backup alarms. Report any unsafe conditions to your superintendent.
- All bi-directional equipment must have a back-up alarm if the view to the rear is obstructed. If you are an operator, keep an eye out for other workers behind you. If you are working around mobile equipment stay alert and never approach or pass behind any moving equipment until you have the operator's attention. Spotters must be used when backing trucks and equipment in the blind.
- Only start equipment while sitting in the operator's seat.
- Always wear your seatbelt on equipment that is equipped with a roll overprotective structure.
- All equipment must be operated within the manufacturer's recommended load capacity and at safe speeds.
- Before servicing any equipment, turn the engine or power off and remove the keys to prevent accidental startup. Never work underneath dump bodies, buckets, booms or blades of equipment during service work until they have been securely blocked up to prevent crushing accidents. Bleed air or hydraulic pressure as needed prior to servicing equipment.
- Keep away from equipment being loaded so that you won't be hit by loose debris.
- At the end of the work shift, all keys must be removed from equipment and turned into the superintendent.
- Never allow any gas-powered or diesel-powered equipment to run in an enclosed area without adequate ventilation.

**B. Forklifts**

- Become familiar with the load capacity charts and controls before handling any load.
- Never add counterweight to forklifts to increase their capacity. Authorized personnel must make modifications and repairs.
- Never ride or climb on the mast, booms or forks. Forklifts may only be used as a personnel hoist when approved platforms with guardrails are used. Platforms must be secured to the forklift and riders must wear full body harnesses with lanyards secured.
- Approach loads slowly and squarely with forks level. Never allow anyone near when loading and unloading.

- Never pick up unstable or poorly stacked loads. Restack the band or shrink-wrap as necessary.
- Carry the load just high enough to clear the ground. If the load is tall and blocks your view, use a spotter or travel in reverse.
- Never lift a load over other workers.
- Avoid driving or turning on inclines.
- Watch for low entrances, overhead obstructions and power lines when traveling and hoisting.
- Never leave a forklift running unattended. When you are finished with the forklift place the forks on the ground and set the parking brake or choke the wheels as needed.

**C. Cranes**

- The stability of a crane is affected by the bearing capacity of the soil it rests on. Timber mats must be used under all outriggers and tracks or crawler cranes when working soft ground. The correct size of the blocking under the outrigger pads can be determined by dividing the capacity of the crane by five (5), (see box below for example). This formula will give you the area of blocking needed under the outrigger pads. Never erect a crane near the top of an embankment.

<u>CRANE OUTRIGGER PAD SIZES</u>	
$\frac{\text{Crane Capacity}}{5} = \text{Outrigger Pad Size in Square Feet}$	
	<u>EXAMPLE</u>
$\frac{30 \text{ Ton}}{5} = 6 \text{ Square Feet or } 2' \times 3'$	
$\frac{60 \text{ Ton}}{5} = 12 \text{ Square Feet or } 3' \times 4''$	
$\frac{100 \text{ Ton}}{5} = 20 \text{ Square Feet or } 4' \times 5'$	

- Outriggers must always be used in the fully extended position on cranes equipped with outriggers. Cranes must be operated only when they are level.
- Position cranes away from other objects so as not to create a pinch point between the counterweight and other objects. Crane swing areas must be clearly barricaded. Never enter the swing radius while the crane is in operation.
- Crane inspections and records must be updated daily. It is the operator's responsibility to inspect the crane daily prior to operation and to maintain written inspection records. Cranes must be certified annually by an authorized testing agency. Any crane found to be deficient should not be operated.

- To prevent damage and/or collapse, never attempt long side pulls, never allow the load to strike the boom and never swing too fast. Always keep the top block centered over the load.
- All cranes must be operated within the load capacity on the load rating chart. Load ratings must be posted in the operator's cab.
- Cranes should never be operated closer than 15' from overhead power lines. Where necessary, a person shall be designated to observe the clearance of the equipment and load.
- Only one signalman should give signals to the crane operator. The operator and those persons who will signal the operator must discuss and agree on hand signals prior to beginning hoisting operations.
- Cranes are not to be operated in high winds or electrical storms.

**D. Skid Steer Loaders**

- Because of their short wheelbase, skid steer loaders are easily overturned. To avoid rollover, avoid steep slopes and travel at a smooth and steady speed.
- Never overload the bucket and travel with the bucket low to the ground. Avoid sudden, jerky movements.
- Keep your arms, head and legs inside the roll overprotective cage at all times during operation.
- Watch for pedestrians and other workers at all times.

**E. Aerial Lifts**

- Watch for overhead power lines when operating aerial lifts. Do not operate any lift within fifteen feet of any power line.
- Aerial lifts must be set up on solid level ground. Lifts should never be set up on loose filled earth or on top of an embankment. If outriggers are required, they must be cribbed appropriately.
- Always stand firmly on the floor of the lift basket. Never sit or stand on the rails of the basket.
- Ladders, planks or other devices are not to be used from the lift basket as a work position or to gain additional reach.
- All employees working from an aerial lift must wear a safety harness with lanyard attached to the boom or anchor point inside the basket.
- Never use an aerial lift as a crane or other unintended purpose. Never exceed the operating capacity of an aerial lift.

- Position aerial lifts away from other equipment and structures to avoid creating a pinch point between the counterweight and other structures.

#### **F. Air Compressors**

- Never point an air hose at anyone, including yourself. Compressed air should not be used to remove dirt or dust from your clothing or body. A strong blast of air can rupture your lungs, eardrums or damage your eyes. Air forced into the blood stream can be fatal.
- Whenever possible use vacuum systems, brooms and hand-held or back-pack blowers instead of compressed air for cleaning purposes. When compression must be used for cleaning, appropriate nozzles must be used to maintain nozzle pressure below 30 psi.
- Make sure all air hose connections are tight. Large diameter hose connections must be pinned or chained to prevent hose whip from an accidental disconnection.
- Never exceed the rated pressure capacity for compressed air tools, hoses, and tanks or regulators.
- Before servicing or adjusting any pneumatic tool, bleed off any air pressure and disconnect the air supply hose.
- Never use compressed air to transfer flammable or combustible liquids.

#### **4.6.5 FALL PROTECTION/FLOOR AND WALL OPENINGS**

In construction we are required to work in high places so often that we become too comfortable working at heights and develop the attitude that a fall just “can’t happen to me”. The truth is falls are the leading killer of construction workers. Most falls can be prevented if we follow some basic precautions. If you see other workers working without proper fall protection, report it to your superintendent so that we can all stay “fall safe”.

##### **A. Always adhere to the six-foot fall protection rule.**

- Fall protection must be used anytime you must work from an unprotected location where there is a potential to fall six feet or more, even if you are doing a job that will only take a few seconds.

##### **B. Choose the fall protection system best suited for the job conditions.**

- **Guardrail systems** should be used when a physical barrier is needed at floor and roof perimeters and around large floor openings, which are elevated six feet or more.
- **Personal fall protection systems** (Harnesses, Lanyards, etc.) should be used when working at locations that are elevated six feet or more and are not protected by guardrails or nets.
- **Floor Hole Covers** should be used to prevent workers and materials from falling through smaller floor openings. All floor openings two inches or larger must be covered.

- Other systems such as warning line systems and safety monitoring systems may be used under special circumstances.

**C. Guardrail fall protection systems:**

- Build guardrails properly, including top rail (39" – 45" high), mid-rail (21" high) and toe board (4" tall). The top rail must be capable of withstanding 200 lbs. of force without deflecting below 39".
- Never remove guardrails unless you are authorized to do so, and other means of fall protection have been provided. Never work on the outside of guardrails unless other means of fall protection have been provided such as personal fall protection.
- Inspect guardrails frequently. If you damage a guardrail or find a missing guardrail, repair it or report it immediately. Never stand, sit or lean on any guardrail.

**D. Floor hole covers:**

- Hole covers must be capable of supporting the maximum total anticipated load, which may be placed on the cover, secured to prevent them from being accidentally removed and clearly labeled "Danger Floor Hole – Do Not remove".

**E. Personal fall protection systems:**

- Before using personal fall-protection systems ask your superintendent for instructions on how to inspect and use each component of the system, including the harness, lanyard, snap-hooks and anchor point if you are unfamiliar with the system.
- Always hook the lanyard to the "D-ring" on the back of the harness and anchor the lanyard to a sturdy anchor point overhead. Never anchor your lanyard to pipes, conduits or guardrails.

**4.6.6 FIRE PREVENTION AND FIRE EXTINGUISHERS**

Our best fire protection tool is you. We depend on each employee to watch for fire hazards and to report or eliminate them. A fire can spread quickly, destroying property, material, equipment and our livelihood and possibly cause injury to us and other building occupants in the process.

- Obey "No Smoking" signs. Never throw cigarette butts or ashes into trashcans and always use ashtrays. Only smoke in the pre-designated areas where smoking is allowed.
- Store and handle flammable and combustible liquids safely.
- Report faulty electrical equipment so that it can be repaired.
- Practice good housekeeping. Never block fire doors, exits or sprinkler heads.
- Follow Hot Work procedures when welding, cutting or performing other hot work.
- Keep portable heaters away from combustible materials.



Fire extinguishers are our best defense against small fires on construction sites. However, fire extinguishers are only effective when the appropriate types of fire extinguishers are selected, they are used properly, they are properly maintained, and each worker knows where the fire extinguishers are located.

**A. Know which type of fire extinguisher is needed:**

There are different types of fire extinguishers and each is rated to extinguish one or more classes of fire.

- Class “A” fires involve ordinary combustible materials such as wood, paper, rubber, plastic and rags. Multi-purpose dry chemical and pressurized water type fire extinguishers are recommended to extinguish Class A fires.
- Class “B” fires involve flammable or combustible liquids such as paints, solvents, oil and gasoline. Multi-purpose dry chemical and carbon dioxide (CO<sub>2</sub>) type fire extinguishers are recommended to extinguish Class B fires.
- Class “C” fires involve live electrical equipment such as transformers, generators, appliances and power equipment. Multi-purpose dry chemical and carbon dioxide (CO<sub>2</sub>) type fire extinguishers are recommended to extinguish Class C fires. Never use water on Class C fires.
- Most of our construction sites are equipped with multi-purpose (ABC) dry chemical type fire extinguishers which are rated to effectively extinguish Class A, B, and C fires.

**B. Know how to use fire extinguishers properly:**

Most fire extinguishers are operated in a similar manner, so just remember these three basic steps when operating all portable fire extinguishers.

- Pull the pin out of the handle. The pin should be held in place by a small plastic seal.
- Remove the discharge hose from the clip on the side of the fire extinguisher.
- While standing about 8-10 feet from the fire, hold the extinguisher upright and aim the discharge hose low at the base of the fire.
- Squeeze the valve handle and sweep the nozzle from side to side while aiming at the base of the fire until the flames appear to be out.
- **REMEMBER...**before you try to fight a fire, make sure that the fire department has been notified, that all other workers are evacuating and that you have a clear path of escape. Never try to fight a fire that is spreading beyond the immediate area of its origin or is obviously larger than the fire extinguisher is capable of extinguishing. Only trained personnel should attempt to extinguish fires, all other personnel should evacuate immediately.

**C. Keep fire extinguishers maintained and ready for use:**

- Make it a habit to inspect the fire extinguishers in your work area on a regular basis. Make sure that the pressure gauge is showing in the full section and that the fire extinguisher has not been damaged.
- Take care of the fire extinguishers in your work area. They are not toys and should never be discharged, unless there is an actual fire.
- If you find a fire extinguisher that needs to be recharged or has become too damaged, show your supervisor or the superintendent so that it may be replaced or recharged.
- Remember once a fire extinguisher has been used that it should be treated as if it were empty, even if the pressure gauge indicates that it is still full.

**D. Know where the fire extinguishers are located:**

- Fire extinguishers should be mounted, not just resting on the floor or ground. Never move a fire extinguisher from its designated location unless you have been authorized to do so.
- Fire extinguishers are usually installed in corridors, stairways, near escape routes and where flammables are stored.
- Do your part to keep fire extinguishers ready for use by not stacking materials in front of them.

**4.6.7 FLAMMABLE AND COMBUSTIBLE LIQUIDS**

Flammable and combustible liquids can be found on almost every construction site. Flammable liquids include those liquids which have a flash point below 100 degrees Fahrenheit, such as diesel fuel. Flash point is defined as the temperature at which a liquid gives off an ignitable vapor. Flammable and combustible liquids can cause serious accidents involving uncontrollable fires and explosions. Accidents involving flammable and combustible liquids are most often caused by: Improper storage practices and handling or using them in an unsafe manner.

**A. Store Flammable and Combustible Liquids Safely.**

- Never store flammable or combustible liquids in glass bottles, open containers, milk jugs or any type of plastic container. Use only approved metal safety cans for storing, handling and dispensing flammable liquids. Approved safety cans must have an internal flash-arresting screen, spring closing lid and spout cover and must be vented to relieve internal pressure when exposed to heat.
- Containers must be labeled to indicate the nature of the contents and any applicable warnings used to store or handle flammable or combustible liquids.
- Keep flammable and combustible liquids away from stairs, passageways and exits. Electrical and mechanical rooms should not be used to store flammable and combustible liquids.

- Outdoor storage tanks containing flammable and combustible liquids must be located no closer than 20 feet from any building. Storage tanks must be grounded to prevent static sparks when dispensing. Tanks must be surrounded by an earthen berm at least 12 inches tall to contain spills.
- Never weld or cut on any container that has been used to store flammable or combustible liquids.
- Keep a fire extinguisher rated at least 20B near flammable and combustible liquid storage and refueling areas. Never smoke or use open flames near storage or refueling areas.
- Keep only a minimum supply of flammable and combustible liquids on hand.

**B. Use and Handle Flammable and Combustible Liquids Correctly.**

- Before refueling equipment, shut off the engine and allow nearby parts to cool down. When possible, refuel equipment at the beginning of the shift while the equipment is still cool.
- Beware of using gasoline or other flammables as cleaning agents. Nonflammable products are available that will work just as well. Never wash grease or paint from your skin with gasoline.
- Flammable and combustible spills and leaks should not be allowed to go unattended, especially indoors. Clean them up as soon as possible in accordance with the instructions found on the Material Safety Data Sheet. If your clothing becomes soaked with gasoline or other liquid chemicals, change your clothing as soon as possible to avoid skin irritation and chemical burns.

**4.6.8 Hazard Communication/Chemical Safety**

The Occupational Safety and Health Administration (OSHA) created the Hazard Communication (Haz-Com) Standard to inform you of the hazards associated with the chemicals you use at work. CAS Steel Erectors has a written Haz-Com program that will let you know which chemical products are dangerous and how to protect yourself when using them.

A copy of the written Hazard Communication Program is available in the jobsite office or in your superintendent's truck and you are welcome to review it anytime.

There are four major parts to our Haz-Com Program:

- Labels
- List of chemical materials
- Material Safety Data Sheets (MSDS)
- Employee Training

**1. Labels**

- Chemical manufacturers are required to evaluate their products and communicate hazard information to the user by placing labels on their containers. The label must include the name and address of the manufacturer, the name of the product in the container and all required hazard warnings. For example, materials that could easily catch fire will say "Flammable",

poisonous materials may be labeled “Toxic” and materials that could burn your skin or eyes are labeled “Corrosive”.

- Every chemical container must have a label including cans used to store gasoline and diesel fuel. If you must transfer a chemical from its original container to another container for use or storage, then the new container must be labeled. If you know of unlabeled chemical containers, let your supervisor know so that the label can be replaced.

## **2. List of Chemical Materials**

- Each employer is responsible for compiling a list of hazardous materials they are using or storing on a jobsite. We keep our list with the written Haz-Com Program and Material Safety Data Sheets.

## **3. Material Safety Data Sheets (MSDS)**

A Material Safety Data Sheet (MSD) is an information sheet containing safety information for a specific chemical product. Suppliers are required to give us a MSDS for every chemical product we receive. Each MSDS looks a little different but all contain the same types of information. Each MSDS is divided into nine major sections.

- **Section 1 – Product Identification**

The first section of the MSDS helps you identify the product. It gives you the name of the product, trade names, manufacturer’s name, address and emergency phone number.

- **Section 2 – Hazardous Ingredients**

This section includes a list of the hazardous ingredients which are contained in the product. Also included are the OSHA PEL (Permissible Exposure Limit) and TLV (Threshold Limit Value), which tell you how much of the material you can safely be exposed to.

- **Section 3 – Physical Data**

Here you will find chemical and physical characteristics of the product such as appearance, boiling point, color, odor and specific gravity.

- **Section 4 – Fire and Explosion Data**

In this section you can find the flash point of the material. The flash point is the temperature at which a substance gives off an ignitable vapor. This section also tells what type of fire extinguisher agents to use should the product catch fire.

- **Section 5 – Health Hazards**

This section lists symptoms of overexposure and gives you first-aid emergency procedure to follow in case of overexposure. It may also list any medical conditions that can be aggravated by exposure to the product.

- **Section 6 – Reactivity Data**

Here you will find if the product reacts to other chemicals or to specific conditions such as heat or sunlight.

- **Section 7 – Spill or Leak Procedures**

This section tells you how to clean up an accidental spill or leak. This section also includes information on how to safely dispose of the product.

- **Section 8 – Special Handling Protection Information**

This section lists the protective clothing and equipment that you will need while using the product. Always wear the protective clothing and equipment that is required.

- **Section 9 – Special Precautions**

This section lists precautions not covered in other parts of the MSDS, such as storage recommendations.

A sample MSDS can be found on the following pages.

#### **4. Employee Training**

- OSHA requires each employer to tell their employees about the hazardous materials they work with and show you how to protect yourself when using them. Some of the chemicals on the jobsite can be extremely dangerous if they are not handled properly. So, remember, before using any chemical product always:
  - Read the label
  - Check the MSDS if you need more information
  - Wear the required protective equipment, and
  - If you need help or have questions, ask your supervisor
- Specific information and instructions on high hazard chemicals may be provided during weekly safety meetings.

##### **4.6.9 Hot Work Permits for welding, cutting and similar operations**

The sparks, slag and heat produced by Hot Work such as welding and cutting are the leading cause of fires on construction jobsites. To reduce the potential for these fires, we have adopted a system for authorizing Hot work through Hot Work Permits. Here is how it works:

Before you begin each Hot Work operation such as welding, torch cutting or other heat and spark generating operations, you must ask your superintendent for a Hot Work permit application. Complete the application and return it to your superintendent. Your superintendent will then conduct an inspection of the area where you will be performing the Hot Work. Hot Work will not be allowed to begin until the following requirements have been met.

- Fully charged, operable fire extinguishers must be readily available in the Hot Work area.
- All combustible materials such as flammable liquids, wood and paper within 35 feet to the Hot Work must be removed, shielded or protected to prevent ignition from sparks, slag, heat or flame.
- The persons performing the Hot Work and fire watch persons must be trained in fire extinguisher operation.
- Arrangements must be made to contact the fire department should a fire occur.

Once these requirements have been met, the Hot Work permit must be issued, and the Hot Work may begin.

#### **4.6.10 Housekeeping**

Good housekeeping is a reflection of everyone's professional pride and craftsmanship. Remember housekeeping is everybody's job all of the time and that a clean job is a safe and efficient job. Poor housekeeping habits will not be tolerated. Poor construction housekeeping can often lead to slipping and tripping injuries, health hazards, damaged and lost materials, tool and equipment loss or theft, fires and many other accidents.

##### **A. To prevent slipping and tripping injuries in stairs and walkways;**

- Keep aisles, stairs and exits clear of debris and stored materials at all times.
- Dispose of waste material and debris as you work every day.
- Run electrical cords and hoses overhead or to one side of walkways, wind up cords and hoses when they are no longer needed.
- Replace or report burned out lights in stairways and walkways.
- Clean up spills, water, and snow or ice immediately.

##### **B. To avoid housekeeping health hazards;**

- Always place food wrappers and drink containers into trash barrels. Failure to do so will result in disciplinary action.
- Empty trash barrels frequently so that rodents will not be attracted.

##### **C. To prevent damaged materials and accidents due to poor material storage housekeeping;**

- Always separate, stack and store materials in orderly piles.
- Remove protruding nails from scrap form lumber to prevent puncture injuries.
- Never stack materials so high that they are unstable.

- Keep debris and stored materials at least 10' back from elevated floor edges and 6' away from floor openings.
- Secure loose materials which might blow off of roofs or other heights, and
- Never throw scrap materials from upper floors or roofs.

**D. Good housekeeping practices can reduce tool and equipment loss and damage.**

- Return all tools to their proper storage place when they are no longer needed.
- Never leave shovels, rakes, power cords and other tools lying around where they could be damaged by equipment traffic or where someone could trip over them.

**E. Poor housekeeping can create potential fire hazards.**

- Combustible scrap material like cardboard, rags and sawdust must be removed daily.
- Rags soaked in solvents and other flammable liquids must be disposed of in the appropriate covered metal storage containers.

**4.6.11 Ladders/Job-made Ladders**

Ladders are so common on our jobsites that we take them for granted. Falling from ladders is a serious problem for construction workers; even falling from a couple of steps high can result in profoundly serious injuries.

**A. Get the right ladder**

- Always use the ladder for the purpose it was made. Step ladders should be opened and self-supporting, not leaned against a wall like an extension ladder. Make sure the ladder is of the proper capacity. Take a few moments to get a ladder long enough that you will not have to reach too far or stand on the top or top step. The weight limit of new ladders is usually on a sticker on the rail: Do not overload your ladder or it may collapse.

**B. Inspect the ladder before using it – every day!**

- On stepladders make sure the steps or cleats are sturdy. If they are cracked or broken, or if the ladder wobbles, then the ladder is dangerous. Inspect the side rails and if they are split or cracked, do not use the ladder. Check for loose nails or bolts and for worn-out hardware. The spreader on a stepladder should not be bent or broken.
- On an extension ladder, watch for loose, broken, or missing extension locks. Make sure the locks catch properly and the rope is in good shape.
- If the ladder is damaged, DO NOT USE IT, immediately mark it “DANGER-DO NOT USE” and get it off site so no one else will get hurt.

**C. Use ladders safely.**

- Set it up correctly, whether you are using it for 10 minutes or 10 months. It needs to have a good footing on a level surface where it will not be knocked over. If you must set up in a doorway or

corridor, secure the feet, have someone hold it for you or barricade around the bottom. Extend the top of the ladder at least 3' above the surface you get off on. Never use a ladder on top of a scaffold.

- Set straight ladders up at the proper angle: too flat or too steep are both dangerous. Try for a 4:1 pitch – new ladders sometimes have a diagram of the proper angle on the side. Secure the top of the straight ladders by tying them off. Stake or block the base of straight ladders to prevent the feet from slipping.
- Move the ladder as needed to avoid over-reaching or leaning. Never try to move a ladder while you are on it.
- When working from a ladder, work facing it and never stand on the top or top step of a stepladder.
- Do not carry anything as you climb the ladder that prevents you from keeping a good grasp on the rungs. Use a rope to pull materials up when you reach the landing. When climbing ladders, use both hands and maintain 3-points of contact with the ladder and remember only one person on a ladder at a time.
- If you must work from a ladder six feet or more above lower levels and the work prevents you from having a free hand to hold on to the ladder with, use personal fall protection equipment anchored overhead to protect you from falling if you should lose your balance.
- Never use a ladder as a scaffold board, walkway or for other unintended purposes.
- Look for overhead electrical power lines when working from ladders. Stay at least 10' from all power lines.

**D. Job-made ladder**

- Job-made ladders must be built to meet specific construction requirements. Construction Specifications for job-made ladders can be found on the following pages.
- Never use pallets or crates in place of a job-made ladder.

**4.6.12 Manual Material Handling/Back Injury Prevention**

Every day your job will require you to handle materials by hand lifting, carrying, pushing, and pulling. These simple operations can exert a tremendous amount of stress on your body that can lead to serious injuries such as back strain and hernias. By using proper handling techniques, you can greatly reduce the potential for these injuries.

**A. Before you move any material by hand, size up the job.**

- Consider the size and weight of the material and determine how far the material will have to be moved.
- Whenever possible, avoid lifting and carrying objects by hand. Instead use forklifts, pallet jacks, wheelbarrows, hand trucks or dollies.



- Determine how many people it will take to do the job safely and if personal protective equipment will be needed such as gloves, steel toe shoes and long sleeves.

**B. When you must lift material, use proper lifting techniques.**

- Get close to the object with one foot alongside the object and one foot behind it. Keep your feet at about shoulder width.
- Squat down; bend at your knees, not at your waist.
- Get a firm grip on the object with your palms not your fingertips.
- Watch for sharp or splintering surfaces. Wear gloves if necessary.
- Keep your back straight and as vertical as possible.
- Keep the object close to you with the weight centered over your feet. Test the load and if it seems too heavy, do not lift it. Get help instead.
- Lift smoothly by straightening your legs. Avoid quick and jerky motions.
- Never lift and twist at the same time. Turn by moving your feet, not by turning your waist.
- When lifting above the waist or when you must carry a load a long distance, set the load on a table or bench, shift your grip and then lift again.
- Use the same procedure when setting objects back down. Be careful not to crush your fingers or toes.
- If you must lift heavy materials for long periods of time, take breaks periodically to stretch your back muscles to prevent fatigue.

**C. When carrying long or bulky materials.**

- Use two people if you need to Agree in advance how the load will be lifted and carried.
- Be sure you can see where you are going. Do not let the load block your view.
- Be careful as you go around corners. Carry long objects like pipe on your shoulder with the front end high, to avoid striking other people.
- Exercising regularly, practicing good posture, and watching your weight may also help prevent back injuries.

**4.6.13 Motor Vehicle Safety**

The manner in which you operate CAS Steel erectors vehicles affects our image; so always drive safely and courteously. The following rules must be observed at all times when operating any Company owned, leased or rented vehicle.

- Only those employees authorized by the superintendents are allowed to operate CAS Steel Erectors vehicles. Inspect the vehicle before driving it. Check the tires for wear and low air pressure, oil, brakes, lights, signals, mirrors, and safety devices. Report damaged or defective equipment to your supervisor.
- All passengers are always required to wear seat belts. Passengers are not allowed to ride in the bed or on the running boards of trucks.
- Drive defensively. Make allowances for mistakes, lack of skill or knowledge on the part of the other driver. Never tailgate, allow at least one car length for every ten miles per hour of speed between you and the car in front of you.
- Never back a vehicle if your view is obstructed. Use a spotter when backing in the vicinity of other workers and in congested areas.
- Never operate CAS Steel Erectors vehicles or equipment while under the influence of alcohol or drugs. Operating Company vehicles while under the influence will result in immediate termination.
- Always obey all traffic laws and road signs.
- Secure all loads properly before traveling. When towing trailers and air compressors they must be secured to the truck with safety chains. Flag all loads, which extend more than 12 inches beyond the rear of the vehicle. Loads should not be allowed to extend more than 4 feet beyond the rear of the vehicle.
- Never operate a vehicle owned by another Company unless specifically directed by your supervisor.
- When driving in rain, snow or icy conditions allow for increased stopping distances, increase your following distance, and turn your headlights on. If you should slide sideways on ice or snow, do not apply the brakes, instead let off the accelerator and turn into the slide.

#### **4.6.14 Personal Protective Equipment**

##### **A. Clothing**

- All employees must wear durable clothing capable of resisting heavy wear and tear. All workers are required to wear long pants, durable work shoes and shirts with sleeves at least four (4") inches long. Never wear loose fitting or ragged clothing.
- In the winter you will need clothing to keep you warm. Usually dressing in multiple layers is best. Wool clothing is a good choice when trying to stay warm.
- During warm weather cotton clothing will provide the best protection while helping to keep you cool at the same time.

##### **B. Hard Hats**

- All employees are always required to wear CAS Steel Erectors issued hard hats on the jobsite. A properly worn and maintained hard hat will protect your head from impact from falling objects, electric shock, and chemicals. Adjust the headband of your hard hat so that it fits properly. Never wear a hard hat backwards unless it is designed to be worn backwards.

- Employees who wear prescription glasses may choose to wear CAS Steel Erectors provided cover goggles or have their prescription glasses properly outfitted with side shields and safety type lenses at their own cost.
- Safety goggles and/or face shields must be used during heavy grinding and chipping operations.
- Splash resistant goggles and face shields must be worn by anyone who is exposed to the arc or flame of welding and cutting operations.
- If you get a foreign body in your eye, do not try to remove it yourself or allow others to try to remove it. Seek medical attention immediately, the longer you wait, the worse it gets. If your eyes come in contact with a chemical, flush them with water immediately and then seek medical treatment.

**C. Hearing Protection**

- Ear plugs and/or earmuffs must be used when operating jackhammers, powder actuated tools and other excessively noisy equipment. Cotton balls or cigarette butts should not be used for hearing protection.

**D. Hand and Foot Protection**

- Durable hard-soled work shoes are required to be worn by all field employees. Tennis shoes, loafers and canvas type shoes are not allowed.
- Safety steel toed shoes must be worn when working with jackhammers, tamps, compactors or when handling heavy objects for extended periods of time.
- Workers should wear leather work gloves when performing manual demolition, and welding or cutting operations, operating jackhammers or when handling materials which are abrasive, splintered or have sharp edges.
- Chemical resistant gloves must be worn when handling chemicals that may irritate and burn or penetrate the skin.

**E. Back Support Belts**

- Ergonomic back-support belts will be provided to you free of charge, if you choose to wear one. Wearing a back-support belt may help you prevent back pain and back injuries associated with repetitive lifting and strenuous activities.

**4.6.15 Powder Actuated Tools**

Powder actuated tools must be handled with care and respect just like you would handle any firearm. Carelessness or misuse of a powder actuated tool could result in serious injury or death. It only takes a

few seconds to make certain that you are using these tools safely, so take your time, use your head and follow the rules and you will be helping to prevent serious accidents on the job.

- Only employees who have received an operator's card from the tool distributor are authorized to use powder actuated tools. Always keep your operator's card with you during use.

- Follow the manufacturer's operating and safety instructions for the tool you are using.
- Always wear safety goggles and use hearing protection when using any powder actuated tool. Require other nearby workers to do the same.
- To prevent accidental discharge, never attempt to unload or disassemble a jammed or broken tool. Broken or jammed tools should be tagged out of service and should only be repaired by an authorized manufacturer's representative.
- Never point a powder actuated tool at yourself or another worker.
- Always use fasteners and power tools which are designed for the tool in use and for the material you are fastening. Never substitute with other brands.
- Never store or use powder actuated tools in an explosive atmosphere or around highly flammable materials.
- Brittle materials such as cast iron, tile or hardened steel should not be fastened with a powder actuated tool.
- When loading the tool, always load the fastener before loading the powder tool. The tool should not be loaded until just prior to using it. When you are finished with the job or take a break, unload the tool. Never leave loaded tools unattended.
- Always point powder actuated tools in a safe direction and never fire a tool without a fastener.
- Post signs when using powder actuated tools in congested work areas.
- Always make a test fastening with a lighter load to determine what level powder load will be needed to fasten the material. Before fastening into a wall or floor, check the opposite side for other workers to prevent injury in the event the fastener passes completely through.
- Hold the tool firmly against and perpendicular to the work surface. Never close the tool against the work surface. Close the tool manually keeping your hands clear of the muzzle.
- To prevent ricochet and spalling, never make a fastening within 3" of a previous fastener, never fasten into a spalled area and never fasten within 3" of the edge of a concrete base material.

#### **4.6.16 Power and Hand Tools**

Power and hand tools are great time and energy savers and most of us use tools almost every day. We must not forget that some tools have the potential to cause severe injuries including amputations, broken bones, eye injuries and electrocution if not used properly.

##### **A. Power Tools**

- Only use power tools you are trained or experienced in using, unless you are working under the supervision of an experienced operator. Know the tool you are using, its application, limitations, and

potential hazards. Use the proper tool for the job at hand and follow the tool manufacturer's instructions.

- Inspect and test the tool before beginning the job. All electric powered tools must be grounded unless they are double insulated and must be plugged into a GFCI protected receptacle. Never use any tool with a missing ground prong or with a damaged cord.
- Unplug the tool before making any adjustments, when changing bits or blades and when the tool is not in use.
- Never use any electric powered tool while standing in water or in explosive atmospheres.
- Tool guards are for your safety, never remove or wedge open any guard. If a guard is missing or malfunctioning, report it immediately.
- Damaged tools must be tagged "Danger Do Not Use" and removed from service. Return broken tools for proper repair. Field repairs should not be attempted on the jobsite.
- Make sure power switches are turned off before plugging in any tool to avoid accidental start up.
- Make sure that blades and bits are sharp and clean. A sharp blade will prevent kickback. Do not force any power tool. It will do a better job at its designed speed.
- Dress properly, loose clothing and jewelry may get caught in moving parts.
- Secure your work. Use clamps or a vise to hold your work whenever possible. Do not overreach. Always keep your footing and balance.
- Never cut or drill into a floor, wall or ceiling until electrical lines and other utilities have been located.
- Always use the appropriate personal protective equipment when using power tools. Safety glasses must be worn when using any power tool. Face shields should be worn with safety glasses when chipping, grinding or working overhead. Hearing protection should be worn when using chipping hammers, saws, or grinders for an extended period of time.
- When using hand-held circular saws, adjust the blade so that it penetrates the wood no more than  $\frac{1}{4}$ " and always use sawhorses to support your work. Never try to hold the work piece in your hand or

across your lap when sawing. Make sure the electrical cord is out of your way. Be especially careful when making partial cuts. Let the blade come to a complete stop before removing the saw from the work piece to avoid pinching the moving blade, which can cause the saw to "kickback" toward the operator.

#### **B. Hand Tools**

- Before using wooden handled tools, inspect them for broken, cracked, splintering or loose handles. Tools with damaged handles should not be used.

- Never throw tools from one worker to another.
- Tools should not be left on scaffolds, or in other elevated places where they could fall on someone below. Keep your tools in a safe place. Never place sharp tools in your pockets.
- Always use tools for the purpose that they were intended. Never make modifications to hand tools or use cheater bars.

#### **4.6.17 Rigging**

Rigging is not a guessing game or a job for the inexperienced. Selecting the correct rigging equipment for the application, inspecting it properly and using it safely requires a great deal of experience and knowledge and should only be done under the supervision of competent or experienced persons. If you are unsure about any rigging assignment, see your supervisor first.

##### **A. General Rules for Rigging**

- Always wear gloves to protect your hands from wire splinters and sharp edges when rigging.
- Know the weight of the load before selecting your rigging equipment. Make sure that all rigging equipment is of proper size, length, and capacity for the job at hand. Never shorten any sling with knots, bolts, or other makeshift devices.
- Never overload any rigging equipment. Remember the more you decrease the angle between the legs of a sling and the horizontal, the more it increases the load on each of the sling legs.
- Remove unnecessary materials and debris from the landing area. Keep your hands and feet clear of the landing area and watch for the load to shift as it lands.
- To avoid damaging the sling and shifting or rolling the load, never attempt to pull a pinched sling out from underneath a load.
- Return all rigging equipment to its storage area when it is no longer needed.

##### **B. Inspecting Rigging Equipment**

- Before using any rigging equipment, inspect it for signs of wear, corrosion, or abuse.
- Wire rope slings must be removed from service and discarded when any of the following are discovered:
  1. Kinks, bird caging, crushing damage or other damage resulting in distortion of the wire rope structure.
  2. Wear or scraping of the individual outside wire, reducing their diameter by 1/3 or more.
  3. Ten randomly distributed broken wires in all strands in one rope lay, or five broken wires in one strand in one rope lay.
  4. Evidence of heat damage.
  5. Worn, damaged, cracked or deformed end attachments.
  6. Significant corrosion of the rope or end attachments.

- Alloy chain slings must be removed from service if:
  1. Individual links become worn, gouged, nicked, bent, or stretched.
  2. The sling is elongated or stretched due to overloading. (All chain slings should be tagged by the manufacturer stating size, grade, capacity, and length).
  3. The sling is exposed to temperatures more than 1000 degrees Fahrenheit.
- Repaired chain slings must be proof tested and certified prior to returning them to service. Mechanical coupling links or low carbon steel repair links shall not be used to repair broken lengths of chain.
- Synthetic web slings should be removed from service when:
  1. There is evidence of acid or caustic burns.
  2. There are signs of melting, charring or welding slag spattered on the sling.
  3. The sling has worn or broken stitches, holes, tears or if the red wear thread is visible.
  4. The end fittings become distorted.

#### **4.6.18 Scaffolding**

Before erecting a scaffold on a floor or roof, make sure the roof or floor will support the weight of the scaffold and its load before erecting it.

##### **A. Footing**

- Scaffold footing must be stable, rigid and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, brick, concrete block, or pallets should not be used to support scaffolds.
- Steel base plates with adjustment screws resting on a 2" x 10" wooden mud sill should be used when scaffolds are erected on the ground.

##### **B. Frames, Bucks or Uprights**

- Scaffold bucks or uprights must be erected plumb, level, and square and must be securely braced with all required bracing.
- Coupling on stacking pins must be used and bucks should be locked together with pins to prevent uplift.

##### **C. Bracing**

- All cross bracing must be installed as recommended by the manufacturer. Diagonal cross bracing must be used as needed to maintain rigidity and squareness.
- Never climb on the cross bracing to access scaffold platforms.

##### **D. Planking**

- All scaffold planking shall be scaffold grade 2" x 10" or wider planks or pre-engineered scaffold planks. Cracked or split planks must be removed from service immediately.
- All scaffold platforms must be solidly and tightly planked. All scaffold planks must overlap their end supports at least 6" but not more than 12" or they must be secured to prevent movement.

- Planks must be strong enough to support four times the maximum intended load.

**E. Guardrails**

- Standard guardrails including top rail, mid-rail and toe board must be installed around all open sides and ends of scaffold platforms which are 10' or more above the adjacent floor or ground.
- Standard guardrails must also be installed around all open sides and ends of scaffold platforms 4'-10' in height when the platform is less than 45' wide.
- The top rail must be 42' above the platform and be capable of supporting 20 lbs. without deflecting more than 3". Mid-rails must be 21 inches above the platform. Toe boards should be 4" tall. Never climb on or work from the guardrail of any scaffold.

**F. Access**

- Use a clamp type of ladder supplied with the scaffolding or an extension ladder to access scaffold platforms. All ladders must extend 3' above the scaffold platform.
- The scaffold bucks or uprights may only be used for access when they are constructed like a ladder. Rungs evenly spaced 10"-14" apart and at least 16" clear between the side rails. "Walk through" and "A Frame" type scaffold bucks should not be used as a ladder to access scaffold platforms.

**G. Anchorage**

- Large scaffold systems must be secured to the building or structure every 26' vertically and every 30' horizontally. Rigid braces or #9-gauge tie wire may be used to secure scaffolds.

**H. Rolling Scaffolds**

- The maximum height of rolling scaffolds must not be more than four times the minimum base dimension.
- Do not ride on rolling scaffolds, get down to move them instead. Rolling scaffolds must only be used on level floors free of obstructions and openings. Casters must be locked to prevent movement during use.

**4.6.19 Trenching and Excavations**

Each year in the U.S., hundreds of accidents occur while performing trenching and excavation work. Many of these accidents result in serious injuries and often fatalities. Some of the hazards associated with trenching and excavation includes: cave-ins, falling objects, drowning, oxygen deficient and explosive atmospheres and those hazards associated with utilities such as electricity, steam and gas.

**A. Always follow the direction of the "competent person"**

- Only a "competent person" can supervise trenching and excavation activities. The competent person is trained and capable of recognizing hazards associated with trenching and excavation work and must have authorization to take immediate action to eliminate the hazards. The competent person must be present when employees are in the trench or excavation.

**B. Respect Underground Utilities**

- Locate all utilities before you dig, including water, sewer, steam, gas, electrical, phone, cable TV, etc. Give utility locating companies at least a 48-hour notice before digging.



- Utility companies will use the following colors to mark underground utilities:

Electric	Red
Gas, Oil, Steam	Yellow
Telephone, Cable TV	Orange
Water	Blue
Sewer	Green

- Proposed excavations should be marked with white paint. Pink should be used to identify temporary survey markings.
- Do not attempt to dig close to underground utilities with heavy equipment. Expose them by hand digging.
- Exposed utility lines that cross through a trench must be supported and protected to prevent them from being damaged.
- Always check for overhead utilities as well when using backhoes or other equipment.

**C. Recognize Surface Encumbrances**

- Identify, remove, or support any items which might fall into the excavation such as trees, fences, utility poles, sidewalks and walls.

**D. Use Protective Systems**

- All employees in excavations over 5 feet deep must be protected from cave-ins by using sloping, shoring, trench shields or other engineered protective systems. Never enter a trench or excavation until a competent person has approved the protective system.
- A registered engineer must design protective systems for excavations more than 20 feet deep.
- The soil type should be assumed to be class "C" unless a competent person has classified the soil type. Use the following sloping diagrams when sloping excavation walls.
- When using trench shields, follow the manufacturer's data, always stay inside the shield and make sure the shield extends 18 inches above the surrounding grade.
- When using shoring systems, follow the manufacturer's data and install the system from top to bottom to prevent exposure to cave-ins.

**E. Plan for Access and Egress**

- Use ramps, ladders, or stairs to safely enter and exit any trench 4 feet or more in depth.
- Place ladders in trenches so that you and your coworkers do not need to walk more than 25 feet to reach one. Extend ladders at least three feet beyond the top of the excavation wall.
- Never ride in the bucket of a backhoe or other equipment as access or egress into a trench.

**F. Protect Yourself from Traffic**

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- Wear warning vests and use cones and barricades when working near traffic.
- Only trained or experienced persons are allowed to direct traffic in a public roadway.

### **G. Stay Clear of Falling Objects**

- Never work under the bucket of a backhoe or other equipment and stay away from trucks while they are being loaded and unloaded.

### **H. Evaluate the Potential for Hazardous Atmospheres**

- Test and monitor the atmosphere of any excavation near landfills, gas lines, hazardous material storage areas or when oxygen deficient or flammable atmospheres may be expected.
- Keep rescue equipment such as harnesses, lifelines, and stretchers nearby when hazardous atmospheres may be expected.

### **I. Water Hazards**

- Standing water in trenches increases the risk of cave-ins. Keep trenches free of water accumulation by using pumps and well points. Never work in a trench where water is accumulating.

### **J. Stabilize Adjacent Structures and Spoil Piles**

- Keep all stored materials and spoil piles at least 2 feet from the edge of all excavations. Scrape all loose soil and rock from the excavation walls.
- Never dig near sidewalks and foundations unless plans have been made to stabilize and support them.

### **K. Make Daily Inspections**

- Before beginning work in any trench or excavation, an inspection must be made by the competent person. Never enter a trench or excavation until it has been approved by the competent person.
- The competent person should inspect protective systems and look for signs of distress such as cracks or bulges in the soil around excavation walls and any other hazardous conditions.
- Inspections should also be made after rainstorms and other hazard increasing events such as blasting. Freezing and thawing conditions can increase the risk of cave-ins.
- If a hazard exists, workers must be evacuated until corrective action can be taken.
- If you need additional information about trenching and excavation safety, ask a competent person or refer to Subpart P of the OSHA Standards.

#### **4.6.20 Warm Weather Safety**

As a construction worker you may be required to work in hot environments both indoors and outdoors. Working in excessive heat for extended periods of time places a strain on your body, better known as heat stress. The amount of heat stress you face is determined by the following factors: Temperature, humidity, radiant heat, air velocity and your personal characteristics such as age, weight, fitness, medical condition, and acclimatization to the heat. You can control the amount of heat stress you face by drinking plenty of fluids, wearing light colored clothing, resting frequently and by performing more strenuous activities in the cooler morning hours. Excessive heat stress without taking proper protective measures can lead to heat disorders including heat stroke, heat exhaustion, heat cramps and fainting.

- **Heat Cramps**

Heat cramps are painful spasms of the muscles caused when workers lose too much body salt through sweating without adequate replacement. Tired muscles, usually those used to perform the work, are the muscles most likely to cramp. Heat cramps may be prevented or relieved by replacing lost body fluids and salts as you work by drinking fluids like Gatorade and plenty of water. Drinking too much water or cold drinks in a short period of time can also cause heat cramps.

- **Heat Exhaustion**

Heat exhaustion may result if you lose too much fluid through sweating without replacement by drinking fluids and taking in enough salt and/or both. Persons suffering from heat exhaustion will continue to sweat but experience extreme weakness or fatigue, dizziness, nausea, or headaches. The skin may become clammy, the complexion pale or flushed and the body temperature normal or slightly higher. To treat heat exhaustion the victim should rest in a cool comfortable place and drink water or sports beverages. Loosen the clothing if needed but do allow chilling. If vomiting or loss of consciousness occurs seek treatment at a medical facility.

- **Heat Stroke**

Heat Stroke is the most serious health problem for workers in hot environments. Heat stroke is caused by the body's internal mechanism being unable to regulate its core temperature. Sweating stops and the body can no longer rid itself of excess heat. Symptoms include: 1) mental confusion, loss of consciousness, convulsions, or coma; 2) body temperature of 106 degrees F or higher; 3) hot dry skin which may be discolored. Victims of heat stroke will die unless treated promptly. While awaiting medical help, the victim must be moved to a cool area and his or her clothing soaked with cool water. The victim should be fanned to increase cooling. Prompt first aid can prevent permanent damage to the brain and other vital organs.

#### **4.6.21 Welding and Cutting Operations**

Careless welding and cutting operations create a potential for fires, explosions, burns, asphyxiation, and electrical shock. Damaged equipment, improper use of equipment and lack of personal protective equipment are the leading causes of accidents during welding and cutting.

##### **A. Inspect and maintain welding and cutting equipment daily.**

- Welding leads, connectors and electrode holders must be fully insulated and free of damage. All splices in welding cables must be done with insulated connectors with no exposed metal parts.
- Inspect all gas hoses, shut-off valves, regulators and couplings for leaks or damage prior to beginning work.
- All compressed gas regulator gauges must be free of damage and working properly.
- Any damaged, defective, or leaking welding and cutting equipment must be removed from service and tagged "Danger – Do Not Use".

##### **B. Use Welding and Cutting equipment properly.**

- Employees who are not trained or experienced in the use of welding and cutting equipment are prohibited from using such equipment unless the equipment is used under the strict supervision of experienced persons.

- No employee shall engage in welding or cutting until a Hot Work permit has been issued by your Superintendent and all fire protection measures have been taken.
  - Before connecting a regulator to a gas cylinder, “crack” the cylinder valve open momentarily to clear the valve of any dust or dirt. Anytime you open a cylinder valve always stand to the side opposite of the regulator.
  - Open valves slowly to prevent damage to the regulator and never open fuel gas cylinder valves more than 1 & ½ turns to allow for quick closing. If special wrenches are required to close cylinder valves, leave the wrench on the valve stem. Never use pliers in place of the appropriate wrench.
  - When lighting torches always use a friction lighter. Cigarettes, matches, or butane lighters must not be used to light torches.
  - When shutting off a torch, always close the oxygen valve first and then the acetylene or other fuel gas. If you hear a “pop”, the oxygen valve on the torch is leaking. If you hear a shrill noise while using the torch, the torch flame has “flashed back” in the nozzle and is burning inside the nozzle. Flashback is caused by dirt or hot slag inside the nozzle.
  - Always place torch cylinders where they will not be exposed to sparks or hot slag from the cutting operation.
  - Never perform welding or cutting operation in confined spaces without adequate ventilation.
  - Never perform welding or cutting operations in areas where explosive atmospheres may be present.
  - Place welding cables and torch hoses where they will not be damaged and where they will not create tripping hazards.
  - Place hot welding electrode butts in a can to avoid fire hazards.
  - Never weld or cut on barrels, tanks, or pipes that may have contained combustible liquids.
- C. Protect Yourself and Others Properly**
- Always be sure your welding hood is in place prior to striking an arc. Never look at the welding arc even from a distance without proper eye protection.
  - Appropriate tinted goggles must be worn when using cutting torches.
  - Always warn other workers nearby before beginning welding and cutting operations. Protect other workers by placing welding shields or curtains around the welding area.
  - Suitable clothing must be worn when welding including leather boots, leather gloves, flame resistant clothing of wool or cotton, and caps, sleeves or aprons made of leather or other flame-resistant materials as needed.
  - Never roll up your sleeves or cuff your pants, which could catch hot slag or sparks.

#### **4.6.22 Winter Weather Safety**

Winter weather can create numerous hazards for all of us including frostbite and hypothermia. We can reduce these hazards by taking some basic precautions.

##### **Frostbite and hypothermia**

Frostbite or hypothermia can result if you are over exposed to extremely cold weather without proper protection. Frostbite may be recognized by the skin turning pale in color because of reduced circulation and in severe cases the skin will blister. To protect yourself from cold temperatures:

- 1) Wear several layers of warm clothing made of cotton or wool.
- 2) Wear waterproof boots and warm socks to protect your feet.
- 3) Wear rain suits to keep you dry if you must work in the rain or snow.
- 4) Use warm gloves and hard hat liners to protect your hands and keep your head warm.
- 5) Move to a warm area if you suspect frostbite.

EMPLOYEE ACKNOWLEDGEMENT FORM

This is to acknowledge that I have received a copy of the CAS Steel Erectors, LLC Field Employee Policy Manual and have been made familiar with the information. I accept the policy manual as a working document, and I agree to abide by these company policies on a daily basis. I am aware that anytime I have questions or concerns regarding the manual or any other questions regarding my work with CAS Steel Erectors, LLC that I should speak with my Supervisor.

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**Employee Signature**

**Date**