# HEALTH & SAFETY PROGRAM

ZIOLKOWSKI
Construction, Inc.
General Construction & Design/Build
Building Strong Relationships Since 1974

Committed to professionalism and excellence for the benefit or our clients, employees and shareholders

Updated 10/26/2021

# Table of Contents

# Table of Contents

# SAFETY MESSAGE

Safety for our employees has always been a top priority of this company as reflected in our good safety record. However, we want to reaffirm our belief in a strong safety program that will continue to create and thus provide a safe place for all employees to work.

It is the policy of this company to provide a healthy and safe place of employment for all employees, and the public, in our company's operations; and to abide by all safety regulations as they pertain to our industry. Safety will take precedence over more expedient and unsafe conditions resulting in a safe workplace. We will provide safety education for our employees, and any employee who willfully disregards known safety practices will be subject to strong disciplinary action. Subcontractors will also be expected to abide by the provisions of this policy. Employees are expected to read and understand the rules of safety on all job sites.

Accidents cost time and money, but most of all, accidents cost lives.

We hope you will share our concern for providing a safe place in which to work, because to make a safety program effective all of us must work together as a team. Help yourself and your fellow employees to be aware of and practice safe work habits.

Sincerely,

Ziolkowski Construction, Inc.

Executive Team

Robert Bash  Adam Bradley  Jason Watts

# Project Startup Safety Discussion Checklist

| Yes | N/A | Safety Item |
|---|---|---|
| ☐ | ☐ | **Obtain Owner Report on Hazardous Materials Inspection** |
| ☐ | ☐ | **Designated Competent Safety Person(s)** |
| ☐ | ☐ | **Site Specific Safety Plan** |
| ☐ | ☐ | **Emergency Evacuation Plan** |
| ☐ | ☐ | **Safety Data Sheets** |
| ☐ | ☐ | **Emergency Contact List** |
| ☐ | ☐ | **OSHA Safety Postings** |
| ☐ | ☐ | **Confined Spaces** |
| ☐ | ☐ | **Site Flood Potential** |
| ☐ | ☐ | **Earth Retention System Engineered Design** |
| ☐ | ☐ | **Daily Excavation / Trench Inspection Reports** |
| ☐ | ☐ | **Temporary Shoring Engineered Design for Demolition** |
| ☐ | ☐ | **Demolition Plan** |
| ☐ | ☐ | **Lockout Tagout Program (Electrical Subcontractor)** |
| ☐ | ☐ | **Certified Trained Individual on Scaffolding / Aerial Platforms / Forklifts** |
| ☐ | ☐ | **Crane Pick Plan** |
| ☐ | ☐ | **Special Hazards: Asbestos / Lead Paint / Mold / Animal Droppings / Other** |

Project Manager to review with Checklist with Safety Director and Project Supervisor; complete Checklist and copy to Safety Director, Project Manager, Project Supervisor and Division Labor Supervisor

## EQUAL EMPLOYMENT OPPORTUNITY POLICY

Ziolkowski Construction, Inc. provides equal employment opportunity to all employees and applicants without regard to race, color, religion, sex, sexual orientation, gender identity, pregnancy, national origin, ancestry, age, genetic information, disability, citizen status, veteran status, military service, or any other legally protected category as established by federal, state, or local law. This policy governs all employment decisions, including recruitment, hiring, job assignment, compensation, training, promotion, discipline, transfer, leave-of-absence, access to benefits, layoff, recall, termination and other personnel matters. All employment and personnel-related decisions are based solely upon legitimate, job-related factors, such as skill, ability, past performance, and length of service with the Company.

Ziolkowski Construction, Inc.'s strong commitment to equal employment opportunity requires a commitment by each individual employee. Compliance with the letter and spirit of this policy is required of all employees. Violations of this policy should be immediately reported to your supervisor or to any member of management under the complaint process provided in the Anti-Harassment Policy. Employees who violate this policy will be subject to disciplinary action, up to and including termination of employment.

## PROFESSIONAL CONDUCT AND ANTI-HARASSMENT

Ziolkowski Construction, Inc. intends to provide a work environment that fosters respect and dignity among employees, customers, vendors, and all those with whom we work. Therefore, we expect employees to treat co-workers, customers, vendors, and others with respect and dignity.

Consistent with this policy, Ziolkowski Construction, Inc. expects that our work environment will be professional, civil, and free from unwelcome, inappropriate conduct, including prohibited harassment.

### Responsibility of Employer and Employees

The Company's goal of a professional, productive work environment means that unwelcome behavior based on a person's protected characteristic ***is not allowed***. These characteristics include an individual's race, color, religion, sex, sexual orientation, gender identity, pregnancy, national origin, ancestry, age, genetic information, disability, citizen status, veteran status, military service, or any other legally protected characteristic. Employees are expected to refrain from such conduct, to discourage it, and to report it to management if they experience it, see it, or learn about it.

Any supervisor or member of management who becomes aware of an incident or possible incident of prohibited conduct, whether by witnessing the incident or being told of it, must promptly report it to James Keldsen, the Safety Director.

Following an investigation, anyone who is found to have committed prohibited harassment will be subject to discipline, up to and including discharge.

**Definition of Prohibited Harassment**
Consistent with the principles in our Equal Employment Opportunity Policy, prohibited harassment consists of unwelcome conduct based on protected characteristics, including but not limited to race, color, religion, sex, sexual orientation, gender identity, pregnancy, national origin, ancestry, age, genetic information, disability, citizen status, veteran status, or military service.

***Harassment based on any protected status is prohibited by this policy, even if does not rise to legally unlawful harassment***.

In particular, Ziolkowski Construction, Inc. will not tolerate harassing conduct that affects an employee's job benefits, unreasonably interferes with an employee's performance, or is unreasonably intimidating or offensive.

***Examples of Prohibited Harassment*** include the following:

- Offensive language and slurs
- Comments that reflect negative stereotyping
- Inappropriate, demeaning, and off-color jokes
- Offensive gestures or actions, including intimidation
- Offensive notes, or photos that are meant to objectify or demean a person based on protected characteristics
- Graphic materials circulated or posted within the workplace

**Sexual Harassment**
Sexual harassment warrants particular mention.

Consistent with our general policies of professionalism, Ziolkowski Construction, Inc. prohibits sexually harassing conduct, such as unwelcome sexual advances, requests for sexual favors, or other inappropriate, disrespectful conduct—whether spoken or unspoken—that is based on sex, sexual orientation, or gender identity.

In addition to the examples of harassment outlined above, sexual harassment may include the following:

- Explicit sexual or romantic propositions
- Repeated flirtations or invitations
- Sexual innuendo and suggestive comments
- Sexually oriented or sex-based "kidding" or teasing, practical jokes, including jokes about gender-specific traits
- Foul or obscene language or gestures
- Displaying or sharing sexually suggestive or objectifying materials at work
- Physical contact such as patting, pinching, or brushing against another's body

Importantly, an employee's conduct or remarks do not need to be "sexual" in content to violate this policy. Any unwelcome conduct or remarks directed toward a person based on his or her sex, sexual orientation, or gender identity are against the principles of this company.

**Unintended Consequences**
The Company understands that it may be difficult to determine whether a particular incident or act amounts to harassment in violation of this policy. Therefore, employees must understand that inappropriate conduct does not need to be *intentionally* harassing or discriminatory to be considered offensive or to otherwise negatively affect a co-worker, customer, a vendor, or someone else who interacts with our company. Therefore, Ziolkowski Construction, Inc. strongly encourages its employees to think about how their actions might affect others.

**Workplace Relationships**
Workplace dating relationships have special difficulties. The same conduct in one situation may be purely personal and social in character, but in a workplace, may amount to offensive and unwelcome conduct.

In addition, a workplace relationship where one of the employees is subordinate to the other is specifically discouraged. What might be seen as a consensual relationship by one employee may be seen differently by the other – especially after the relationship has ended.

Therefore, we ask employees to advise (confidentially) Mr. Keldsen about workplace dating relationships. Even if no superior-subordinate relationship exists, it is important to confirm the voluntariness of any romantic (or potentially romantic) relationship.

The Company reserves the right to take appropriate action to prevent the appearance or occurrence of a conflict of interest, favoritism, or sexual harassment, which action could include but is not limited to reassignment of work, reassignment of departments, reassignment of offices, or other appropriate action.

**Employee Fraternization Policy**

The Company's working environment is intended to preserve clear boundaries between personal and professional relationships. Therefore,

- During working hours and in work areas, employees are expected to keep all personal interactions limited and at a professional level to avoid distracting or offending others.
- Employees are prohibited from engaging in any physical interactions that would be seen as inappropriate in the work area. What constitutes inappropriate conduct is in the discretion of Ziolkowski Construction, Inc.
- Employees who engage in personal relationships with others and allow these relationships to negatively affect the working environment will be subject to disciplinary action. Employees who do not respect this policy, particularly after such issues are raised, may be disciplined, up to and including discharge.

**Reporting and Complaint Procedures**

If you believe you or any other employee is being subjected to conduct or comments by a co-worker, supervisor, manager, vendor or a customer that violate the Company's policies regarding discrimination, harassment and other misconduct, you may, if you feel comfortable, directly address such conduct with the alleged harasser. Importantly, however, that is not a requirement. Employees may also report these matters to the Safety Director, James Keldsen – who may be reached at 574-287-1811. If for any reason you do not feel comfortable reporting the matter to Mr. Keldsen or he is not available, you may report the matter to the Company's Chief Financial Officer, Keith Knight.

***Supervisors who become aware of any potential violation of this policy must immediately report this information to the Safety Director and Chief Financial Officer. Supervisory employees who fail to report potential violations will be subject to appropriate discipline up to and including discharge.***

**Investigations**
Ziolkowski Construction, Inc. will promptly investigate complaints that potentially violate this policy. In the course of an investigation, the Company expects candor and truthfulness from those who may be asked to provide information.

If an investigation confirms that prohibited behavior has occurred, the Company will take corrective action, up to and including discharge, as is determined to be appropriate in the Company's judgment.

**Confidentiality**
Because we want to encourage employees to report inappropriate conduct, to be forthcoming throughout the course of an investigation, and because we want to reach a fair conclusion, Ziolkowski Construction, Inc. encourages employees to respect the privacy of those who may be involved in such an investigation.

Consistent with its obligations to investigate harassing and other inappropriate conduct, the Company will also, to the extent possible, keep information confidential.

Additionally, to the extent possible, the Company will keep the underlying complaints and the terms of their resolution confidential, with the understanding that allegations will need to be addressed, harassment stopped, and in many cases, the results reported to appropriate individuals.

**No Retaliation Allowed**
Ziolkowski Construction, Inc.'s commitment to equal employment, anti-discrimination, respect and professionalism, also includes its commitment to preventing retaliation. We firmly support employees raising concerns and potential violations without worrying about retaliation. Therefore, the Company cannot and will not tolerate acts of reprisal taken against any employee for reporting what they, in good faith, reasonably believe is a violation of these policies. Employees who make a report in good faith will not suffer any adverse employment consequences because of the fact that they make such a report.

Any employee who retaliates against or harasses another employee for making such a report, or encourages another to do so, will receive appropriate discipline, up to and including discharge.

In addition, Ziolkowski Construction, Inc. will not tolerate retaliation against any employee who, in good faith, cooperates in the investigation of a complaint. Anyone who engages in such retaliatory behavior will be subject to appropriate discipline, up to and including termination.

If you believe this policy has been violated, please report the violation immediately per the reporting procedure outlined above.

**False Accusations**
Because false accusations may have a serious impact on the person accused, any employee who makes an accusation or files a complaint that they know to be false will be subject to discipline, up to and including immediate termination of employment.

***Please help us create a working environment free from discrimination and harassment.***

# OPERATING POLICIES

The following procedures are the standard operating policies of Ziolkowski Construction, Inc. We bring these items to your attention so we may better serve our clients and develop higher productivity levels in our industry.

1) Employees will be in their respective workplace at the starting time of the workday as designated by the project supervisor.
    a) Any employee arriving to work at their designated area 5 - 15 minutes late will be docked ½ hour pay.
    b) Any employee arriving to work at their designated area 16 - 30 minutes late will be docked 1-hour pay.

2) Lunchtime will be 30 minutes as designated by the project supervisor. Anyone leaving work early or arriving late will be subject to the conditions as described in 1a and 1b.

3) Quitting time shall be 8 ½ hours after starting time as per project working hours. Employees will work in their work area until the designated quitting time. Anyone leaving work early will be subject to the conditions as described in 1a and 1b.

4) At Ziolkowski Construction, Inc., we expect 8 hours of acceptable productivity for 8 hours of pay. We expect employees to have the proper tools and the ability to perform their craft. The management staff of Ziolkowski Construction, Inc. will determine the matter of acceptable workmanship and acceptable productivity.

5) Should an employee abuse any of these policies, they will be released from employment.

# INDIANA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

Indiana administrates its own safety statute and standards through a state agency known as "IOSHA." In most instances, you will be dealing with IOSHA and not OSHA, the federal agency. Indiana is one of twenty states, Puerto Rico and the Virgin Islands that have its own state program. State programs must be equal to or better than the OSHA program. Also, state programs must adopt and enforce all standards promulgated at the federal level.

## A SUMMARY OF INDIANA'S OSHA ACT:

Effective Date: The State of Indiana assumed administration and enforcement of Occupational Safety and Health Laws, Regulations and Standards on March 6, 1974. On that date, the Federal Occupational Safety and Health Administration (OSHA) approved an Indiana plan submitted in December of 1972.

Coverage and Description of IOSHA: The Indiana Occupational Safety and Health Act covers all employers with one or more employees. IOSHA is a division within the Indiana Department of Labor. It consists of five units: The Bureau of Building and Factory Inspections (Industrial); Construction Enforcement; Industrial Hygiene; Public Sector; and the Bureau of Safety, Education and Training, (BuSET).

IOSHA's address: Indiana Department of Labor, Occupational Safety and Health Administration, 402 W. Washington St. W195, Indianapolis, Indiana 46204-2287. IOSHA's telephone number is: (317) 232-0055.

Reporting: It is a requirement to report fatalities and/or a catastrophe (hospitalization of five or more people), within 48 hours. To report, call IOSHA at (317) 232-0055. We suggest that you follow up with a letter and keep a file copy.

Posting:
(1) Put up state furnished or federal poster in a prominent place so employees can see it.
(2) If you receive a citation as a result of an inspection, post the citation at or near the place of the alleged violation of the standard for at least three days or until the alleged violation has been corrected, whichever is greater.

The following section deals with inspection, citations, on-site consultation, variances-how to apply, and record keeping requirements.

## INSPECTIONS:

What to do when the State Compliance Officer (inspector) arrives at your job site.

**Be polite, respectful and cooperative**. You should not be hostile or negative, for such attitudes could interfere with the investigation, result in the loss of rapport, and make it possible to receive the maximum penalties and fines for violations. If an inspector asks questions, for which you cannot readily answer, inform the inspector that you will get the answer for them. No one can, or are they expected to, remember all OSHA regulations and it is permissible to search for and verify any answer from the appropriate regulatory section. You may refer to the Health and Safety Manual, company programs or documents, OSHA regulations, and any other applicable sources as needed.

**See Credentials.** In all probability, the superintendent will be the highest-ranking company official available at the job site. To the superintendent, then, the inspector will probably present his/her credentials. After presenting his/her credentials, the inspector ordinarily should be allowed to enter the workplace without undue delay; however, it is appropriate to ask the inspector to wait a few minutes while the highest ranking official of the company at the job site is located. If neither the superintendent nor the assistant is at the site, the project account should call the following in order listed:

1) General Superintendent
2) Safety Director
3) Project Manager
4) Division Manager

**Outside parties not with the department of labor**. If the inspector brings another person who is neither a compliance officer nor an authorized employee representative to participate in the inspection, you should carefully question this person to determine why he/she is present.

The best rule to follow is one of reasonableness and common sense. If the person is an equipment expert, and he/she is otherwise a disinterested party to the investigation, you may choose to let him/her participate. If, on the other hand, you feel the person's presence will be of questionable value concerning matters of safety and health in the workplace, then you may politely ask the outside party to wait until your Supervisor, Safety Director, or an officer of the company can be consulted.

**Get his / her card and copies of his/her job assignment**. Get a copy, if possible, of his/her work assignment for your site (usually a building permit or Dodge report, or a copy of a complaint.) We may want to contest an alleged violation, so record all pertinent information. The names, business affiliation and addresses of all persons, present should be written down. If a complaint is involved, you should ask:

a) If the person filing the complaint requested that his/her name be withheld. If he / she made no such request, then the disclosure of the name of the party initiating the complaint is allowed.
b) Whether the complaint was filed by a present or past employee, by an employee of a customer, subcontractor, or material supplier, or by a person not directly employed by ZCI. The answers to these questions may be extremely important to us. In most

cases an inspection should not be permitted if the complaint was filed by someone other than a present employee or his / her representative unless the complaint involves an imminent danger.

**Pre-Investigation Conference**. Before starting the inspection, the compliance officer will explain the nature and purpose of his/her inspection, the general scope, and outline the records he/she wants to review and the employees he/she wishes to question. You should request permission to notify the following parties that an inspection is underway at the job site: the customer, the other contractors, subcontractors, etc., and the main office.

**Your Right to a Reasonable Inspection.** The Act repeatedly guarantees employers the right to a reasonable, orderly, and fair inspection. The entry must be:

a) At a reasonable time.
b) To inspect within reasonable limits.
c) In a reasonable manner.
d) To question a reasonable number of employees if there is not an authorized representative of the employees.

If the investigation involves a complaint, the compliance officer generally may inspect and interview only with respect to matters reasonably related to the complaint. After preliminary investigation, if you believe that a request is unreasonable, you must use careful judgment and good faith in handling the situation. You can discuss the matter with the compliance officer and explain why you think his / her request is unreasonable. If he/she insists on the request, then you may either give in or ask the inspector to wait until top management can be consulted. If you have strong convictions that the request is unreasonable and unnecessary, you should consult with your supervisor, the safety director, or an officer of the company before proceeding. There probably will be other areas the compliance officer may inspect while a decision is being made by management.

## AVOIDANCE OF DISRUPTION:

The Department of Labor's proposed regulations direct the compliance officer to conduct his/her investigations, so as, to avoid any undue and unnecessary disruption of the normal operations of the employer. You should inform the inspector of the day's schedule and assist him/her in conducting the investigation, so as, to least disrupt the work.

## WHAT TO DO DURING THE ACTUAL INSPECTION:

**Accompany the inspector**: This is an employer's right and a most important one, since in most cases, you will be the only spokesman for your company during the inspection and the eyes and ears of management for any contest proceedings later. The IOSHA statute gives the compliance officer authority to interview employees, privately if he/she wishes, and to examine machinery or equipment. You may choose to be present at an employee interview during working hours at the jobsite. This may cause the inspector to interview employees away from

the jobsite, however, the compliance officer also is empowered to take pictures and samples and to employ other reasonable techniques. You should also take pictures and samples as near to those of the Compliance Officer as possible.

**Take notes:** It is imperative that you take as complete a set of notes as possible, identifying areas visited, the machinery, equipment and material examined, employees interviewed, and others interviewed or involved in the inspection, and a written description of each alleged hazard. There is nothing improper about taking notes during the investigation. A full written report should be prepared including the above items and relevant comments made by the inspector, or information acquired during the pre-inspection and the closing conference at the completion of the investigation.

**Representatives authorized by employees:** The IOSHA statute provides a right for a representative authorized by the employer's employees to accompany the Compliance Officer. This person is often the appointed steward or union Safety Director. The statute further provides, in the absence of an authorized employee representative, the compliance officer "shall consult with a reasonable number of employees concerning matters of safety and health in the workplace."

## POST INSPECTION ACTIONS:

After an inspector completes his/her inspection, he / she conducts a closing conference with the employer representative, probably your job superintendent. The inspector will informally advise of apparent violations. On the jobs where employees have an authorized representative, there is no provision for his/her inclusion in the conference unless the employer invites him/her. This closing conference is important. If you agree you violated the act or any standards during the closing conference, this admission can be used against the company later. On the other hand, it is the step of the inspection process in which you can negotiate. If the inspector believes a violation may have occurred, he/she will tell you that he/she does not know if you will be cited for "such and such" condition, but he/she will ask how long it will take to correct these same conditions. You're agreeing to have the alleged unsafe conditions corrected within a certain time period becomes your abatement period, assuming you receive a citation.

The employer has a say in deciding on an abatement date. It is not set by the inspector alone. The inspector should ask "When can you have it corrected?" It is up to the employer to insist on an adequate abatement period. If the condition to be corrected is a very minor one and is not a problem to correct, and if the employer recognizes that it is an unsafe condition, then agree to an early abatement period, i.e. immediate or one day after receipt of citation. If, on the other hand, you question the inspector's reasoning and you feel you are, in fact, in compliance or you ascertain that a certain amount of time would be necessary to correct the alleged unsafe condition, i.e. supplies, delivering time, etc., then deny a violation and insist on a longer abatement date, usually 15 to 20 days. Remember, the abatement date becomes effective upon receipt of the Safety Order (citation) from IOSHA. Even with immediate abatement, you have one day after the receipt of the Safety order in which to correct the alleged unsafe condition.

Employers generally receive a Safety Order (citation) about ten (10) days after an inspection. It takes this long for an inspector to write up his / her report, send it in, and have it process through all the administrative channels. So, until you actually receive the Safety Order, you are not positive that you will be cited on a particular item. If you wait to see what you will be cited on and you agree to an immediate or one-day abatement, then you may not have time to make the correction. Failing to correct within the time allowed may subject you to a maximum penalty of $7,000 a day for failure to abate. On the other hand, to spend money to correct an alleged unsafe condition before you actually receive the Safety order may prove to be a waste if it is going to cost you money and/or you question the alleged unsafe condition. Insist on a "long" abatement period to allow enough time to be able to assess whether you want to contest before you spend the money and time to order and install equipment to correct the alleged unsafe condition. The closing conference presents the employer the opportunity to help himself. We cannot always blame IOSHA for inadequate time in which to abate—the employer has a voice.

After the inspection process is over and you have been cited, make sure you correct cited violations that you decide not to contest. Reinspection is becoming more prevalent due to federal pressures. Failure to abate can cost up to $7,000 a day for up to 10 days.

## IMMINENT DANGER:

If the compliance officer concludes that conditions or practices exist that could reasonably be expected to cause death or serious physical harm before the danger can be eliminated, he/she shall so inform the employer or you, as a representative of the company, and attempt to get the employer to voluntarily abate the danger. When the danger can be immediately abated without great expense of shutting down the job, you should do so immediately. However, the compliance officer has no authority to shut down the job without a court order. He can often obtain such an order, however, in a matter of a few hours.

If you decide that you cannot abate the danger without a court order, a compliance officer can only leave and report to his/her office that he/she is recommending a civil action to restrain or remove the condition.

If you guess wrong on whether the danger is a violation of the Act, and an employee is killed before a court order can remove the danger, you have opened the company to a possible penalty of $70,000 for a knowing violation. Criminal charges could also be filed by the county prosecutor. Multiple violations may be cited for $70,000 each.

Items you especially want to point out to the inspector are:

a) Copies of minutes of job site safety meetings.
b) Copies of "Toolbox Safety Talks" or other employee training material.
c) Copies of "Safety Warnings to Individuals, to Subs, and Trade Contractors."
d) Any other material that would help to establish "good faith compliance efforts." Examples may include records of training for forklifts, fall protection, scaffold user, competent person designations, etc.

## WRITTEN RECORDS:

If the project is cited for alleged violations, you should make a written report to the Safety Director immediately following the closing conference. This report should provide as much detail as possible. For instance; location of alleged violation; what actually was occurring at the time of inspection relating to the alleged violation; and what sort of investigation techniques or documentation were used by the inspector.

If the project is cited for alleged violation, the following items should be noted:

a) The company will receive, by mail, a Safety Order with a cover letter stating posting requirements. If these are sent to the main office, the Safety Director will see that the requirements are complied with for all Safety Orders. If, however, it is determined after review with all concerned that the company should contest, the Safety Director will take the correct steps to do so.
b) If the Safety Order is sent to the job site. It should be forwarded to the Safety Director at the main office so he/she may expedite it.
c) All payment of penalties should be made through the Safety Director's office.

## CITATIONS (SAFETY ORDER):

Seven to ten days after IOSHA inspected your job site, you will receive a Safety Order(s) with a cover letter signed by the IOSHA Director. The Act requires a copy of the enclosed Safety Order(s) to be prominently posted in a conspicuous place at or near the job site or near each place a violation occurred. It must remain posted until the alleged violation is corrected or for at least three days, whichever is greater.

## SERIOUS/NON-SERIOUS:

A Safety Order for violation of a standard is either deemed serious or non-serious. If it is non-serious, no penalty is assessed unless ten or more violations were charged. In this event, penalties up to $5,950 may be assessed for each non-serious violation. Penalties for serious violations begin at $50 and go as high as $7,000. Penalties are noted on an attached penalty sheet. Payment of assessed penalties should be made payable by check or money order to "Indiana Department of Labor/IOSHA", and should be sent to Indiana Department of Labor, 402 West Washington Street Room W195, Indianapolis, Indiana 46204-2287.

Read the Safety Order carefully. Note the date by which alleged violations are to be corrected. If you do not contest a particular violation, it must be corrected by the date so indicated. Failure to correct puts you in a position of "Failure to Abate" which carries a $400 to $7,000 a day fine for up to 30 days to a maximum of $210,000.

## CONTESTING CITATIONS:

From the day you receive the Safety Order at the job site or your office, you have fifteen (15) working days in which to contest. You may contest whether the violation occurred, its gravity

(serious or non-serious), the amount of the penalty, the abatement period, or any combination thereof. If fifteen (15) working days has elapsed and no contest has been filed by you, the Safety Order becomes final and binding. You must then pay any assessed penalties and correct all alleged violations.

## INFORMAL HEARINGS:

During the fifteen (15) working day period in which you may contest a Safety Order, you may request an informal hearing. A request for an informal hearing, however, does not extend the 15 working day period for seeking judicial review.

An informal hearing is a meeting held between your company's personnel and IOSHA officials to discuss the Safety Order which you have received. The informal hearing can be arranged by making a phone call to the IOSHA office at (317) 232-0055 and asking for an informal hearing. At this meeting, you will have the opportunity to discuss any points of disagreement, such as excessive fines, etc. IOSHA has the right to lower penalties and/or drop items from the Safety Order if they feel it is warranted. On the other hand, they may hold to their original charges and accompanying penalties. At the close of the hearing you can accept the settlement proposed by IOSHA or you can choose to go to the next step and file a letter for Formal Contest.

An employee representative for the craft(s) concerned may attend at the discretion of the Commissioner of Labor. If an attendance, they may have input to the discussion but can only appeal the reasonableness of the abatement dates.

# SAFETY RULES

Anyone employed by Ziolkowski Construction, Inc., who disregards or fails to comply with the company's safety rules and policy, as well as the current safety regulations or the Federal Occupational Safety and Health Law (OSHA), the client, state, county or city in which the job may be located, is subject to disciplinary action as outlined in the Disciplinary Safety Policy.

Always keep in mind that this list of safety rules cannot be, nor is it intended to be, all-inclusive. The use of common sense is the most important safety rule. If you are confused as to what is safe or unsafe, either an action or condition, do not take chances, ask your supervisor immediately.

1) Compliance with safety rules and regulations under the current Federal and State Occupational Safety and Health Law (OSHA) is mandatory.

2) All injuries, regardless of how minor, must be immediately reported to your supervisor.

3) Report to your supervisor when you see an unsafe act or dangerous condition.

4) Report to your supervisor if there is something about your work that you do not understand.

5) Always keep your mind on your work. No horseplay on the job. Injury or disciplinary action or both can be the result

6) Watch where you are walking. Do not run. Tripping usually results in painful or serious injuries.

7) A good job is a clean job and a clean job is a safe one. Keep your work area free from rubbish and debris.

8) Never remove warning tags on any apparatus, valves or switches, unless you have been instructed to do so by the person who attached the tag. To do so may cost people their lives. Also see the lockout/tagout procedures.

9) Never work at heights if you are afraid to do so, if you are subject to dizzy spells, or if you are apt to be nervous or sick.

10) Never move an injured person unless it is absolutely necessary. Further injury may result. Keep the injured person as comfortable as possible and utilize jobsite first aid facilities until a doctor or paramedics arrive.

11) Do not distract the attention of fellow workers. To do so may cause injury to the worker.

12) Learn to lift correctly—with the legs, not the back. If the load is too heavy, get help.

13) Pay attention to the signs that have been posted. They are there for your protection. Failure to do so is grounds for strict disciplinary action.

14) No one will remove, displace, damage, destroy, or carry off any safety device or safeguard furnished or provided for use on the job, nor interfere with the use thereof under penalty of disciplinary action.

15) No one may interfere with the safety procedures and regulations that have been adopted for the protection of the jobsite personnel.

16) Pile or stack material safely.

17) Be sure all safety guards are in place and do not remove safety guards unless you are instructed to do so, and then for oiling, adjusting, or repairing only. Reinstall safety guards when you have finished maintenance and do not leave equipment unattended while maintenance is ongoing.

18) When using electrical equipment, you must be qualified to perform the work. If you are, you must be certain that the ground wire is connected to the machine and it is suitably grounded or use double-insulated equipment.

19) Keep clear of all electrical gear and wiring unless you are a qualified electrician.

20) Know where fire-fighting equipment is located and learn how to use it.

21) Powder activated tools will be operated only by persons qualified and authorized to do so.

22) Do not use power tools until you have been properly instructed in safe working methods.

23) Wear hard hats on the jobsite as required (see PPE section.)

24) Use eye and face protection where there is danger from flying objects or particles such as when grinding, chipping, burning, drilling, welding, etc.

25) Dress properly. Wear appropriate work clothes, long pants, sleeved shirt, gloves, and work boots. Loose clothing and jewelry should not be worn.

26) Never operate any machinery unless all guards and safety devices are in place and in proper operating condition.

27) Keep all tools in safe working condition. Never use defective tools or equipment. Report any defective tools to your immediate supervisor promptly and tag out of service.

28) Properly care for and be responsible for all personal protective equipment.

29) Be alert and do not walk or work under overhead loads.

30) Do not operate machinery or tools if you are not an authorized operator.

31) Practice good housekeeping at all times.

32) Riding material hoists or other moving equipment is prohibited except on seats provided for this purpose. Do not stand or sit on sides of moving equipment.

33) Place ladder on a substantial base and do not use ladder with broken, split or missing rungs or rails. All ladders are to extend at least 3 feet above the landing platform and must be securely fastened. Proper ladder placement can be determined by: ¼ total height equals base length. If this is not perfectly clear, please see your supervisor. Always inspect ladder before using.

34) Gasoline must be stored and transported in proper safety containers only. Engines must be shut off when refueling and smoking is prohibited near flammable liquids.

35) Compressed gas cylinders (Oxygen, Acetylene, etc.) must be secured in an upright position. When not in use, caps must be securely in place.

36) When burning or welding is being done, a fire extinguisher must be close at hand at all times.

37) The use of, or being under the influence of intoxicating beverages, drugs, or other chemical substances while on the job is prohibited and is cause for immediate termination. (See the Drug and Alcohol Policy.)

38) All posted safety rules must be obeyed and cannot be removed except by management authorization.

39) Comply at all time, with known federal, state, and local safety laws, employer regulations and policies.

40) Inspect all scaffolds daily for defective materials, loose parts, corrections, and proper erection. Make sure all guardrails are in place.

41) Use ground fault interrupters on all electrical equipment if the temporary or permanent service does not have this protection (see Ground Fault Program.)

42) Working on scaffolds is a necessary part of our work. Most serious injuries associated with our work results from improper building and maintaining of scaffolding. All scaffolds should be inspected for defects in material, loose parts, connections, and proper erection. Make sure all guards are in place.

43) Do not use extension cords that have grounds cut off or have cuts in them. These cords are to be tagged and turned in for repair.

44) Do not use stilts unless you are thoroughly familiar with their use. If you are inexperienced or not comfortable with stilts, do not use them. Check the stilts daily to make sure they are in safe working order.

45) All occupants of company vehicles will wear safety belts when the vehicle is in motion. Likewise, occupants of leased or privately-owned vehicles being operated at company expense are required to abide by the above stated policy. Safety belts save lives, pain, suffering, embarrassment, money, and it's the law.

46) Exposed rebar and other material that may pose a puncture hazard shall be covered in such a manner to comply with OSHA regulations. Mushroom style caps often do not provide the protection necessary for a safe worksite and may not be adequate.

47) Adverse weather can endanger workers. Adverse weather may include temperature extremes, high winds, lightning, floods, ice, hail, and heavy snow. Each situation must be evaluated prior to starting work, or continuing work in the event conditions change during a shift. If the weather conditions are such that workers' lives are endangered, stop work immediately. Evacuate the work area, assemble in the designated area, and take a head count in order to account for everyone. Inform the project manager of the work stoppage when it is safe to do so.

48) The use of personal cell phones and audio equipment (radios, cd players, etc.) is prohibited on Ziolkowski Construction work sites during working hours. The use of these devices interferes with workers' abilities to hear safety directions, warnings, heavy equipment, emergency signals, and in general promote an unsafe working environment. These personal devices shall be left in the employee's vehicle or site office.

49) In the event you encounter special operating conditions, such as work along railroad right of ways, above or immediately adjacent to waterways, or other non-typical work sites, contact the Safety Director for guidance.

50) If suspected mold is observed in the work site, contact your project manager or safety director for guidance and to arrange testing as necessary. Mold exposure has been linked to ill health effects and may need to be abated or treated. Additional personal protective equipment may be required such as respirators, Tyvek suits, gloves, face shields, etc.

51) Accumulated animal feces and/or urine can pose risks to employee health. In the event this is observed in the workplace, stop work, contact your project manager or safety director for recommendations. Particularly, waste from bats, pigeons, rats, and mice may be hazardous to human health.

# DRUGS / ALCOHOL POLICY AND PROCEDURES

## PURPOSE

As society's concern for drug and alcohol abuse in the workplace is growing, most owners of construction facilities are requiring contractors bidding on their jobs to have drug and alcohol procedures.

The company is desirous of maintaining a safe work environment conducive to effective business operation and being able to bid competitively on construction jobs. Accordingly, to comply with these company standards, and our obligation under the Drug Free Workplace Act of 1988, the company formalized the following Drug/Alcohol Policy and Procedures as follows.

## POLICY

The presence of drugs and alcohol in the workplace and the influence of these substances on employees during working hours, while often violative of the law, is also inconsistent with effective business operations. Ziolkowski Construction, Inc. recognizes drug and alcohol abuse as ranking among the major health hazards in our society. It further recognizes the debilitating consequences such abuse can inflict on employees, their families and the company.

While the company has no intention of intruding into the personal lives of its employees, the company recognizes that alcohol and drug abuse, as well as other problems in living, can be successfully treated, and provides an employee assistance program which is designed to assist affected employees. The company's policy is to encourage employees to seek help and to support employees in solving these problems, providing job performance remains satisfactory.

Ziolkowski Construction, Inc. prohibits the use, possession, distribution, or sale on its premises, facilities, or workplaces of any of the following: Amphetamines, Barbiturates, Benzodiazepines, Marijuana, Cocaine, Methadone, Methaqualone, Opiates, Phencyclidine, Ethanol, or any other related drug paraphernalia. Company employees must not report for duty or perform work while under the influence of any drug, alcoholic beverage, or intoxicant. Employees on company premises may be subject to search as provided herein. Applicants and employees will be required to consent to drug/alcohol testing as outlined herein at those projects or workplaces designated by the company. All of our craft workers are subject to a drug testing program through the collective bargaining agreement and Ziolkowski Construction, Inc requires the affected workers comply and stay current in that program. This is a zero-tolerance policy.

## DEFINITIONS

When used herein, the following terms will have the meanings given below:

A. **Alcohol:** Ethyl alcohol (ethanol.) References to use or possession of alcohol include the use or possession of any beverage, mixture, or preparation containing alcohol.

B. **Drug:** Any substance, including prescription drugs which may impair mental or motor function; including, but not limited to, any psychoactive substance, controlled substances, Amphetamines, Barbiturates, Benzodiazepines, Marijuana, Cocaine, Methadone, Methaqualone, Opiates, Phencyclidine, Ethanol, or any designer or simulated, or "look alike" drugs. This definition does not apply to prescription drugs which have been disclosed to the company by the employee and are approved for use within prescription limits.

C. **Under the Influence:** Being affected by a drug or alcohol or the combination of a drug and alcohol in any detectable manner. The symptoms of influence are not confined to those consistent with misbehavior, nor the obvious impairment of physical or mental ability, such as when an employee appears intoxicated, confused, uncoordinated, exhibits marked personality changes, or shows obvious irrational behavior.

D. **Employee:** Any individual, staff, or hourly, who performs work for Ziolkowski Construction Inc.

E. **Company Premises:** All company property, facilities, land, lodging quarters, buildings, structures, trailers, equipment, offices, desks, lockers, vehicles, aircraft and parking lots whether owned, leased or under control of the company. Additionally, included are the work locations, including the job site of a customer, supplier, subcontractor or associate contractor or the travel to and from those locations while on company business.

F. **Testing Facility:** A hospital, clinic, physician's office, or laboratory where specimens can be collected and tested according to recognized professional standards.

G. **Contraband:** Includes but is not limited to the following: Drug paraphernalia, unauthorized explosives, drugs, or alcohol.

H. **Drug Paraphernalia:** Any article for the use, storage, or sale of drugs.

I. **Accident:** Any event resulting in injury to persons or property to which the company believes an employee either directly caused or to which they indirectly contributed.

J. **Incident:** An event which the company determines has all the attributes of an accident, except that no harm was caused to persons or property.

K. **Employee Assistance Program (E.A.P.):** Counseling, referral and rehabilitation for employees and eligible dependents who seek such assistance.

## RIGHT TO SEARCH

The company reserves the right to search any personal effects, vehicles, lockers, baggage, lunch boxes, toolboxes, etc., for contraband. An individual who has notice of this rule and enters company premises is deemed to consent to this search procedure. Searches will be conducted on

an “as needed” basis as determined after consultation with management. There will be an employee representative and/or other witness to all searches conducted by the company.

An employee who refuses to submit to a search as described in this policy is subject to disciplinary action including immediate discharge. An employee on company premises, facility, or workplace in possession of contraband is subject to disciplinary action including immediate termination.

## PRESCRIPTION DRUGS

Any employee using a prescription drug which may impair mental or motor functions shall, prior to beginning employment or prior to returning to work from an absence, complete a “Prescription Drug Release Form.” For the safety of all employees, the company may place persons using such drugs on temporary medical leave until released as fit for duty by the prescribing physician. The company reserves the right to obtain a confirming medical opinion before returning the employee to duty.

## PRE-EMPLOYMENT TESTING

Pre-employment drug/alcohol testing is a condition for employment in certain job-specific situations. A consent form signed by each applicant shall be a part of the job application process. Applicants who refuse to submit to the required testing will not be considered for employment. The cost of the pre-employment testing will be the applicant’s responsibility. The employee will have 10 working days after being hired to take the drug analysis and report the results to the employer.

Employees who are being “recalled” from layoff or approved leaves of absence for reasons other than substance abuse will not be required to undergo screening at the time of their return to work.

## POST ACCIDENT

Any employee who is involved in an accident which results in an injury requiring medical treatment will be required to submit to drug/alcohol testing. The affected employee will be taken to an approved physician for the testing procedures. Refusal to consent to testing will result in termination of employment.

## HEAVY EQUIPMENT OPERATORS

Ziolkowski Construction recognizes that the operation of Heavy Equipment (currently defined as Lulls or equivalent all-terrain forklifts, cranes, and semi-truck tractors) have the potential, more than any other piece of equipment, to contribute to catastrophic accidents. Operators of such equipment who are under the influence of drugs or alcohol pose a threat to themselves and those around them. In order to protect our employees and the property on which they work, Ziolkowski Construction requires that all employee operators of such equipment submit to

periodic and random drug screening. A designated list of approved operators will be maintained and all employees on that list will be required to pass a random test at least once every two-calendar year. Any employee that is not on this list, who cannot pass a drug/alcohol test, or refuses to consent to such testing is forbidden from operating Heavy Equipment.

## RANDOM TESTING/DRUG FREE JOB TESTING

The company may institute a program of random testing. Employees and their representative—if any—will be advised 30 days in advance regarding the implementation of that program under which, from time to time, a limited number of employees are selected for drug/alcohol testing by a fair and non-discriminatory selection procedure. On occasions there are jobs that are classified as drug free environments; in which case all employees on that job will have to take and pass a substance abuse test before he/she is allowed on the premises to perform work or will have to meet such other requirements as an owner may require of bidders for such job.

## DISCIPLINE/REHABILITATION

When an applicant submits to pre-employment testing and passes the required test, he/she will be eligible for further employment consideration. If the applicant refuses to submit to screening, the Personnel Department will be notified; such individuals will be advised that the job offer has been withdrawn in light of their refusal to complete the pre-employment process. If the applicant fails the required test, he/she may reapply for employment consideration after a period of no less than sixty (60) calendar days has elapsed. The company will waive this waiting period if the applicant completes an acceptable drug/alcohol rehabilitation program and presents proof of completion to the workplace personnel/safety office. An applicant who fails a second test will not be considered for employment for a period of no less than one (1) year.

All current employees who fail to pass a drug/alcohol test will be suspended without pay. During this time the employee will be required to enroll in a credentialed assistance program. Any costs not covered by the employee's insurance, shall be the responsibility of the employee. If the employee fails to contact an approved assistance program within a five (5) day period, he/she will be terminated from employment with this possible exception: For those who may be injured and incapable of entering a program, or for other good cause as determined by the company, the five (5) day limit may be extended.) The company reserves the right to discharge any employee who tests positive.

When an employee enters a company approved assistance program, and the program representatives provide our company with proof of entrance, he/she will be placed on an inactive payroll status. At the time of successful completion of the program, and proof of completion has been presented to the company, the employee will be eligible for reinstatement if a position for which he/she is qualified is available. If no position is available, the individual will be issued a Reduction of Force Layoff Slip.

Employees shall consent to continue participation in a company approved assistance program and shall also consent to periodic and random testing as determined by the company for a period

not to exceed two (2) years. If such employee fails, or refuses a random test, he/she shall be subject to immediate termination.

Employees who are members of Unions covered by a drug testing program may be entitled to treatment through an Employee Assistance Program (EAP). The EAP provides counseling and assistance for a variety of personal issues and can be utilized confidentially. Contact the EAP through the associated drug testing program.

## FINANCIAL OBLIGATION OF THE COMPANY

The company will bear the cost of the drug/alcohol screens for all tests conducted after employment, but not for pre-employment tests, which as explained above will be paid by the applicant.

## TESTING FACILITIES

The company will contract with approved testing facilities for the testing and support as required under this policy and these procedures.

## CONFIDENTIALITY

The company will take steps to maintain the confidentiality of information generated in implementing and enforcing this policy and these procedures. Disclosure will be made only in appropriate circumstances.

## TRAINING

Supervisors and other management personnel will be trained to recognize appropriate symptoms and to administer the policy in a consistent, confidential, and intelligent manner.

## SUBCONTRACTORS AND SUPPLIERS

The company will include the provisions of the policy and these procedures, in its contracts with subcontractors, suppliers, consultants, agents and others involved in providing goods or services on its premises and will require that they do the same with respect to their lower-tier subcontractors and suppliers.

## POSTING AND DISTRIBUTION

Significant sections of the policy and these procedures will be posted in conspicuous locations of the worksite and will be given to each applicant and employee for signature, signifying applicant has read and understands policy and procedures.

The company may revise and/or amend this policy and these procedures as required.

## EMPLOYEE ASSISTANCE PROGRAM (EAP)

We recommend a credentialed assistance counselor provide assistance to any employee who might suspect or recognize their drug/alcohol dependency. Additionally, most trades offer EAP programs for their members. Please contact your union representative, your insurance carrier, your drug and alcohol testing administrator, or the Safety Director for more information.

We strongly encourage our employees to seek help on an ongoing and voluntary basis, if needed. Addictions are treatable. Ziolkowski Construction recognizes that misuse of alcohol and other drugs is a pervasive problem in our society. The most effective way of approaching this problem is through education and concerned intervention. This policy is intended to promote treatment and rehabilitation as well as a safe and secure work environment.

The company reserves the right to modify any portions of this policy and these procedures at any time.

# COMPANY-OWNED VEHICLES

1. Any driver of a Company-Owned vehicle shall be properly licensed to drive in all areas in which the vehicle is operated and vehicle maintained in safe working order.
2. Any driver of a Company-Owned vehicle shall follow safe driving practices and operate said vehicle in accordance with all Federal, State, and Local ordinances. Cargo must be securely restrained when required.
3. The Company-Owned Vehicle shall not be operated by any driver whose ability to do so is impaired by alcohol, drugs, medication, illness, fatigue, or injury.
4. Reasonable personal use of the Company-Owned vehicle will be allowed to the custodian.
5. The custodian may give his/her spouse permission to drive, provided such person meets the Company's driver's standards. A copy of the spouse's motor vehicle record must be submitted to the Company annually or as otherwise required.
6. It is Company policy that all persons who drive or ride as passengers in Company-Owned vehicles shall use available passenger restraints at all times while the vehicle is in motion.
7. The Company shall be notified immediately of any and all accidents in which the driver is involved while driving or riding in the Company-Owned vehicle.
8. The vehicle shall not be used in commerce for the benefit of any person or entity other than the Company.
9. The custodian hereby agrees to allow the Company to perform motor vehicle record checks and to use that information to determine the custodian's suitability to operate Company-Owned vehicles.
10. The use of cellular phones and other electronic devices while operating a vehicle is illegal in many municipalities and may increase the risk of accidents. All cell phone use should be hands-free.
11. The undersigned custodian agrees to comply with the Company's drug testing policy. This policy requires all employees who drive company vehicles to participate in random tests for the use of drugs and/or alcohol.

**DRINKING AND DRIVING IS ABSOLUTELY PROHIBITED!**

# DEPARTMENT OF TRANSPORTATION (D.O.T)
# RULES AND REGULATIONS

## GENERAL

All motor carriers and their employees responsible for the management, maintenance, operation, or driving of commercial motor vehicles, or the hiring, supervision, training, assigning, or dispatching of drivers must be instructed in and obey the rules of this section. A driver may not drive if he/she is under the influence of alcohol, schedule 1 drugs, amphetamines, narcotics or any other substance, which may cause the driver to drive unsafely. A driver must also be sure his/her/her vehicle is safe and properly working before each trip. Additionally, he/she must be sure that the emergency equipment is in place and ready to use and that the cargo is properly loaded and secured.

A driver must reduce the speed of the vehicle or stop driving if he/she has trouble seeing or the road becomes unsafe because of the weather. In addition, drivers are required to wear their seat belt. The parking brake should be set, and any other steps taken to keep the truck from moving before the driver leaves it unattended. After making an emergency stop, the driver has ten minutes to put out emergency warning devices. Use of headlights is required from one-half hour after sunset to one-half hour before sunrise or anytime there is not enough light to clearly see 500 feet away. Lights and reflectors are to be clean and not hidden by cargo or the tailboard.

If a driver is involved in an accident, regardless of seriousness, he/she shall:

a) Stop immediately.
b) Take steps to prevent more accidents at the scene.
c) Assist injured persons.
d) Upon request provide his/her name and address, motor carrier's name and address, and tag number of truck.

If a driver loses his / her license, the driver must tell the motor carrier before the end of the next day.

A driver or employee may not smoke or expose any open flame near a vehicle being fueled. Extra fuel shall be carried only in properly mounted tanks.

All drivers must retain a copy of all Safety Data Sheets (SDS) for every chemical that is being transported in any vehicle driven for Ziolkowski Construction, Inc.

## COMMERCIAL DRIVER'S LICENSE STANDARDS:

## REQUIREMENTS AND PENALTIES

Drivers must have a commercial driver's license (CDL) in order to drive a commercial motor vehicle (CMV) after April 1, 1992. Federal standards require that States may issue CDL's to CMV operators who reside in their State, and who pass a knowledge and skills test administered by the State. Additionally, States will check and consider information in the applicant's current driving record, in the Commercial Driver's License Information System (CDLIS), and in the National Driver Register (NDR) before issuing a CDL. States may allow certain drivers to substitute a good driving record and certain experience for the driver skills test.

Generally, drivers need CDL's if a vehicle meets one of the following definitions:

1) Has a gross combination weight rating (GCWR) of 26,001 or more pounds, inclusive of towed unit with a gross vehicle weight rating (GVWR) or more than 10,000 pounds; or
2) Has a GVWR of 26,001 or more pounds; or
3) Is designed to transport 16 or more passengers, including the driver; or
4) Is of any size and is transporting hazardous materials in an amount that requires placarding.

Drivers are issued a CDL according to the classification of the vehicle. There are three vehicle groups:

**Group A:** Any combination of vehicles with a GCWR of 26,001 or more pounds provided the GVWR of the vehicle(s) being towed is in excess of 10,000 pounds.

**Group B:** Any single vehicle with a GVWR of 26,001 or more pounds, or any such vehicle towing a vehicle not in excess of 10,000 pounds GVWR.

**Group C:** Any single vehicle, or combination of vehicles, that does not meet the definition of Group A or Group B, but that either is designed to transport 16 or more passengers, including the driver, or is placarded for hazardous material.

Drivers who operate special types of CMV's will also need to pass an additional test and obtain an endorsement on their CDL as follows:

T - Double / triple trailers (Knowledge test only.)
P - Passenger (Knowledge and skills tests.)
N - Tank vehicle (Knowledge test only.)
H - Hazardous materials (Knowledge test only.)
X - Combination of tank vehicle and hazardous materials.

Restrictions:
Air Brake (Knowledge and skills tests.)

Within 30 days of a conviction of any traffic violation, except parking, drivers must notify employers, regardless of the nature of the violation or the type of vehicle which was driven at the time.

For conviction while driving a CMV, drivers will be disqualified and lose their privilege to drive for:

60 to 120 days following convictions for:

a) Two or more serious traffic violations within 3 years. These include excessive speeding, reckless driving, improper or erratic lane changes, following the vehicle ahead too closely, and traffic offenses in connection with fatal traffic accidents.

1 year following convictions for:

a) Driving under the influence of a controlled substance or alcohol; or
b) Leaving the scene of an accident; or
c) Using a CMV to commit a felony.

3 years following convictions for:

a) Any of the 1-year offenses while operating a CMV that is placarded for hazardous materials.

Life following convictions for:

a) Second offense of any of the 1-year or 3-year offenses; or
b) Committing a felony involving the manufacture, distribution, or dispensing of controlled substances.

The States are "Tied" into the Commercial Driver's License Information System (CDLIS) to exchange information about CMV drivers and traffic violations. States use the system to make certain that CDL applicants have not already obtained a CDL and to facilitate a check of the driver's record. Employers have access to the clearinghouse through the licensing agency within the state.

## QUALIFICATIONS OF DRIVERS

Briefly stated, a driver must meet the following requirements:

a) Be in good health.
b) Be at least 21 years of age.
c) Speak and read English well enough to do his/her job and respond to official questions.
d) Be able to drive the vehicle safely.
e) Be able to determine whether the vehicle is safely loaded.
f) Know how to block, brace, and tie down cargo.
g) have only one valid driver's license.
h) Take a DOT written exam for drivers.

i) Not be disqualified to drive a commercial motor vehicle.
j) Pass a DOT drug test.

The following are disqualifying offenses:

a) Revocation, suspension, withdrawal, or denial of an operator's license
b) Conviction or forfeiture of bond for the following criminal offenses while driving a commercial vehicle:
    1. Driving while under the influence of alcohol.
    2. Driving while illegally using drugs.
    3. Driving while illegally possessing or transporting drugs.
    4. Leaving the scene of an accident that resulted in injury or death.
    5. Using a commercial motor vehicle while carrying out a serious crime (a felony.)

The length of time a driver is disqualified for conviction of a disqualifying offense is as follows:

a) Generally, a first offender is disqualified for 1 year following conviction or forfeiture.
b) When another offense is committed within 3 years after a prior offense, a driver is disqualified for 3 years.
c) If a driver's license is taken away by any legal authority, he/she cannot operate a commercial vehicle until the license is reinstated.

Physical Qualifications and Examinations:
All drivers of commercial vehicles must pass the DOT physical. If the driver passes the physical, the doctor will give the driver a Medical Examiner's Certificate that must be carried at all times when driving. The certificate must be renewed every 2 years.

Here are some of the primary physical requirements:

a) Drivers must have good eyesight. Glasses or contact lenses are permitted.
b) Drivers must hear well. Hearing aids are permitted.
c) Drivers must not use or be addicted to amphetamines, narcotics, or other drugs that may keep him/her from driving safely.
d) Drivers cannot be alcoholic.

Here are some common diseases or health problems that may keep a driver from passing the DOT physical:

a) Chronic high blood pressure.
b) Diabetes, if controlled by insulin.
c) Breathing problems such as asthma and emphysema.
d) Disqualifying heart diseases.
e) Any impairment of normal body movements.
f) Any sickness that could cause fainting or "blackouts."
g) Mental or nervous problems.

There are provisions for a waiver of disqualification for certain physical defects if the individual is otherwise qualified to drive. If a driver has lost or cannot use a foot, leg, hand finger(s), or an arm, he/she cannot drive until a waiver is obtained. A waiver cannot be obtained for loss of eyesight or hearing.

Driver Qualification File:
Every motor carrier must have a qualification file for every regularly employed driver. If an owner-operator is the motor carrier, then he/she must keep the file. The following are the items that must be in a driver qualification file:

| | | |
|---|---|---|
| a) | Driver application for employment | #391.21. |
| b) | Medical examiner's certificate | #391.43. |
| c) | Driver's road test | #391.31. |
| d) | Written examination | #391.35. |
| e) | Certification of road test and written exam | #391.35. |
| f) | Annual driver's certification of violations | #391.27. |
| g) | Inquiry to previous employers (3 years) | #391.23(a)(2) & (c.) |
| h) | Driving record inquiry to state agencies | #391.23(a)(1) & (b.) |
| i) | Annual review of driving record | #391.25. |
| j) | Copy of waiver letter, if issued | #391.49. |
| k) | Controlled substances testing information | #391.87(f) (1-5.) |

## DRUG TESTING

Motor carriers must establish an anti-drug program that includes testing of drivers for the use of controlled substances.

Controlled substances testing applies to drivers operating in interstate commerce if:

a) The driver must be medically qualified; and
b) The vehicle has a gross vehicle weight rating or gross combination weight rating of 26,001 or more pounds; or
c) The vehicle is designed to transport more than 15 passengers, including the driver; or
d) The vehicle is used in the transportation of hazardous materials in a quantity requiring placarding.

Testing is required for the following classes of substances: Marijuana, cocaine, opiates, amphetamines, phencyclidine.

The following test applies to employee drivers and contract drivers a motor carrier intends to use:

1. **PRE-EMPLOYMENT:** This test applies to drivers/applicants the motor carrier intends to hire or contract with for services.
2. **REASONABLE CAUSE:** This test applies when a trained supervisor or company official observes a driver acting in a manner which indicates use of a controlled substance. The supervisor must prepare and sign a statement documenting the

observation within 24 hours. It is preferable that at least 2 witnesses make the same observation.

3. **PERIODIC**: Each driver must submit to a drug test at the time of his/her first scheduled medical exam after the effective date of the rule
4. **RANDOM:** This is unannounced testing based on a random selection of drivers. Names are chosen by lottery from a list of all drivers in a pool. Drivers notified of selection must submit to testing. This process ensures that all drivers have an equal chance of being selected at any time.
5. **POST ACCIDENT:** This test applies to a driver cited for a moving violation arising from a reportable accident. The test must be administered within 32 hours of the accident. If the driver is too seriously injured to provide a urine sample, he/she must authorize release of hospital records.

The testing procedures are based on those established by the Department of Health and Human Services and are contained in 49 CFR Part 40. These procedures include Urine sample collection, laboratory procedures, and reporting and recordkeeping of test results. Only laboratories certified by the National Institute on Drug Abuse may be used. 49 CFR Part 391 incorporates the testing procedures by reference.

A driver who has tested positive for any of the substances will be notified and may discuss the positive test result with a qualified Medical Review Officer (MRO.) The driver will have an opportunity to explain any special circumstances to the MRO. The MRO is responsible for reporting the results to the motor carrier's drug program management.

In addition to the testing procedures, DOT requires that all drivers, supervisors and company officials undergo training on the use and abuse of controlled substances.

A driver is medically unqualified to drive if he / she refuses to be tested or tests positive for any of the 5 classes of drugs. In cases of a positive test, the driver is medically unqualified until such time as the driver no longer uses controlled substances and tests negatively.

A driver who has tested positive for any of the substances or refuses to be tested following a fatal accident will be disqualified from driving a CMV for one year.

## NOTIFICATION AND REPORTING OF ACCIDENTS

All motor carriers must report and keep records of accidents

The definition of a "reportable accident" is an occurrence involving a vehicle engaged in the interstate, foreign, or intrastate operations of a motor carrier resulting in any one of the following:

a) The death of a person.
b) Bodily injury to a person who, as a result, received immediate treatment away from the scene of the accident.

c) Total damage to all property aggregating $4,400 or more based on actual loss or reliable estimates.

When a reportable accident involves the death of a person within 24 hours after accident, the motor carrier must give the following information by telephone or in person, as soon as possible after the accident, to the Regional Director, Office of Motor Carriers of the Federal Highway Administration Region in which the carrier's principal place of business is located:

a) Date and time of the accident.
b) Location of the accident.
c) Name of each motor carrier involved.
d) Number of persons killed.
e) Number of persons injured.
f) Estimate of total property damage.
g) Number and type of vehicles involved.
h) A very brief description of the accident.
i) Name of the person making the report.
j) Telephone number at which that person can be reached.
k) The result of a drug test.

Within 30 days after a motor carrier learns or should have learned of a reportable accident, the carrier must file the original and two copies of form MCS 50-T (property) or form MCS 50-B (passengers) accident report with the Regional Director, office of Motor Carriers of the Federal Highway Administration Region in which the carrier's principal place of business is located.

Accident reports must be kept on file at the carrier's principal place of business for at least 3 years after the accident.

If, within 30 days after a reportable accident happens, a person involved in the accident dies, and the motor carrier has already filed the accident report, the carrier must give written notice of death to the Regional Director, Office of Motor Carriers. This must be done as soon as possible after the death and not later than the next business day.

The notice of death must include the following:

a) The date and location of the accident.
b) The name of the decedent.
c) The name and address of the carrier.

## HOURS OF SERVICE OF DRIVERS

A motor carrier cannot allow or require any driver to drive:

a) More than 10 hours following 8 consecutive hours off duty.
b) After being on duty 15 hours.
c) After being on duty more than 60 hours in any 7 consecutive days.

A motor carrier, operating vehicles every day of the week cannot allow or require any driver to drive after being on duty more than 70 hours in any 8 consecutive days.

It is recommended that motor carriers and drivers keep a summary(recap) of drivers' hours worked and hours available. This will help prevent hours of service violations.

Every motor carrier must require every driver to make a record of duty status(logs), in duplicate, for each 24-hour period or shall record his/her duty status by using an automatic on-board recording device.

Motor carriers and drivers who do not complete and keep records of duty status(logs) or who make false records of duty status(logs) can be prosecuted.

The driver must give or send by mail the original of the driver's record of duty status(log) to his/her motor carrier within 13 days after completing the record. The motor carrier must then keep the record of duty status(log) for 6 months.

A driver does not have to make a record of duty status(log) if the following apply:

a) The driver operates within a 100-air-mile radius of the normal work reporting location.
b) The driver returns to the work reporting occasion and is released from work within 12 consecutive hours.
c) At least 8 consecutive hours off duty separate each 12 consecutive hours on duty.
d) The driver does not exceed 10 hours maximum driving time following 8 consecutive hours off duty.
e) The motor carrier maintains and retains for 6 months accurate and true time records showing the following:
    1. The time the driver reports for duty each day.
    2. The total number of hours the driver is on duty each day.
    3. The time the driver is released from duty each day.
    4. The total time for the preceding 7 days for drivers used the first time or intermittently.

## INSPECTION, REPAIR, AND MAINTENANCE

Every motor carrier must see that all its vehicles are regularly inspected, repaired, and maintained.

All vehicle parts and accessories must be in safe, and proper working order at all times.

Push out windows, emergency doors, and emergency door marking lights in buses must be inspected at least every 90 days.

Generally, motor carriers must see that the following maintenance records are kept on each commercial motor vehicle:

a) An identification of the vehicle including company number (if so marked), make, serial number, year, and tire size. Also, if the carrier does not own the vehicle, the records must show the name of the person providing the vehicle.
b) A way to show the type and due date of the various inspection and maintenance operations to be performed.
c) A record of inspection, repairs, and maintenance showing their date and type.
d) Lubrication records.
e) A record of tests conducted on pushout windows, emergency doors, and emergency door marking lights on buses.

Maintenance records must be kept where the vehicle is either housed or maintained for a period of 1 year and for 6 months after the vehicle leaves the motor carrier's control.

A vehicle must not be driven if it is likely to break down or cause an accident.

Every motor carrier must require its drivers to complete a vehicle inspection report at the end of each day. The report must identify the commercial motor vehicle and list anything wrong that could affect its safe operation.

Before the vehicle is driven again, the motor carrier must repair any safety defects listed and sign the vehicle inspection report.

A copy of the last vehicle inspection report must be kept on the power unit. Every motor carrier must keep the original vehicle report for a least 3 months.

Before driving a commercial motor vehicle, the driver must do the following:

a) Be satisfied that it is in safe operating condition.
b) Review the last inspection report.
c) Sign the report if defects were listed and the report has been signed to show that repairs were made.

Every motor carrier must see that all its vehicles are inspected annually, as a minimum, and that proof of inspection is maintained on the vehicle. Proof of inspection of the vehicle may consist of a copy of the inspection report; or an inspection decal (for decals other than those issued through State-Mandated inspection and roadside inspection, the decal must indicate the date of the inspection, along with a certification statement and the location at which the inspection report is maintained.)

The motor carrier is required to maintain, or have access to, a copy of the periodic (or annual) inspection report for 14 months from the date the inspection was performed. The annual inspection is in addition to the requirement for regular inspection, repair and maintenance.

Commercial motor vehicles may meet the annual inspection requirements in several ways:

a) State-Mandated inspection. Where the vehicles are subject to a State-Mandated inspection equivalent to the Federal Annual Inspection.
b) Roadside Inspection. Where the vehicles have been subject to a State or other jurisdiction's roadside inspection equivalent to the Federal annual inspection (this includes passing a CVSA level-1 inspection.)
c) Self-inspection. Where the motor carrier inspects the vehicles, following the Federal inspection requirements and the inspectors meet the minimum qualifications.
d) Commercial shops. Where the motor carrier's vehicles are inspected by commercial shops, garages or other third parties acting as agents of the motor carrier and the inspectors meet the Federal Qualifications.

Effective January 1, 1992, motor carriers must see those employees, responsible for ensuring that the inspection, repair and maintenance of the brakes and brake systems of the motor carrier's vehicles are performed properly, meet minimum experience and training standards.

Motor carriers must maintain proof of the brake inspectors, qualifications for the period of time during which the inspector is responsible for brake related work and for one year thereafter.

a) The training requirement can be satisfied through the successful completion of an apprenticeship program or training program; or the brake inspector may satisfy the requirements through brake-related training, experience, or a combination of training and experience totaling at least one year.
b) Experience performing brake maintenance or inspection tasks in a motor carrier maintenance program, commercial garage, fleet leasing company, etc., which are similar, to the tasks the employee performs may be used to satisfy the requirement.

Ziolkowski Construction, Inc. at its discretion may assign a company owned vehicle to a Field Superintendent for the purpose of making the Superintendent more efficient in his/her assigned job. The vehicle shall not be used in commerce for the benefit of anyone other than Ziolkowski Construction, Inc. The assignment of a company owned vehicle may be discontinued at any time at the discretion of Ziolkowski Construction, Inc.

Whenever an employee is operating a company owned vehicle, he / she is expected to operate the vehicle in compliance with all Federal, State and Local regulations covering such vehicle. If an employee violates any laws or regulations while operating a company owned vehicle, the employee will personally pay all fines and penalties resulting from the offending action.

Ziolkowski Construction, Inc. will not pay any fines, penalties or legal fees resulting from such non-compliance.

A Superintendent who is assigned a company owned vehicle may use the vehicle for limited personal use. Use of the vehicle by other family members or friends, except in emergency situations, is prohibited. It is your responsibility to see that anyone driving the company vehicle is covered by an appropriate insurance policy. If the employee elects to use the vehicle for personal reasons he/she must maintain a log of vehicle use, which clearly indicates personal miles, and conform to IRS rules covering personal use of company owned vehicles. All employees with assigned company owned vehicles shall use the system set up by the Controller of Ziolkowski Construction, Inc. to log and report mileage of company owned vehicles.

An employee who is assigned a company owned vehicle is responsible for maintaining the vehicle in good condition. Ziolkowski Construction, Inc. will pay for all maintenance costs, but the employee is responsible for seeing that maintenance is performed on time, especially work that is necessary to maintain the factory warranty. Company owned trucks with the Ziolkowski Construction, Inc. name on the side should be kept clean and present a professional appearance. The Yard Manager for Ziolkowski Construction, Inc. will provide detailed instructions for the maintenance of all company owned cars and trucks.

All gasoline for company uses, oil changes, and lubrication should be purchased with a company fuel card. Any other purchases related to the maintenance of a company vehicle should be discussed with and approved by the company mechanic.

Any accidents involving an assigned company vehicle should be reported immediately to the Safety Director of Ziolkowski Construction, Inc. The employee involved must abide by all laws and regulations in the reporting and handling of any accident situation. A detailed report of the accident and photographs of the accident scene must be provided to the Safety Director within twenty-four hours. The driver and all passengers are required to submit to a drug and alcohol screen within four hours of the accident.

Upon assignment of a company vehicle the Superintendent will meet with his/her Department Head and appropriate Support Staff to discuss this policy. On completion of the meeting the Superintendent will sign a document that indicates his/her understanding of the policy and agreement to comply.

In accordance with regulations established by the IRS, all employees assigned company owned vehicles must report on a periodic basis any personal use of such vehicles to the accounting department. The IRS requires that an employee's gross earnings be adjusted by the value of the benefit received, and the appropriate taxes be withheld.

The procedure established is for each employee to maintain a daily log of total miles drive, and to note how many of the total miles are personal versus business. Commuting to and from the office is considered by the IRS to be personal use. Additionally, employees must log fuel purchases made with company credit cards.

The vehicle you are receiving is company owned. Use it and treat it as your own personal vehicle.

# DISCIPLINARY SAFETY POLICY

When unsafe acts or conditions have been observed or reported, the employee will have a conference with his/her immediate supervisor, the Site Safety Representative and/or our Safety Director to discuss the violation and ask any questions concerning our safety rules. A copy will be retained in the employee file and a copy will be given to the employee if requested. Repeated safety violations cannot be tolerated for the employee's safety or fellow employees' safety. Therefore, except as provided below, the following steps will take place when violations occur:

1) The first warning will be a written warning with no suspension and a verbal discussion of the unsafe act and clarification of any questions.
2) The second warning will be a written warning with notice of suspension and the employee will be suspended for three to five days depending upon the severity of the safety violation.
3) Upon return to work, should the employee continue to create unsafe acts or conditions, it will be necessary for Ziolkowski Construction, Inc. to immediately give a written notice of termination and will contest unemployment benefit claims filed by workers dismissed for safety violations.

Management, at its discretion, may bypass the above procedures, and exercise their right to discharge any employee responsible for any acts that cause or may cause injury or damage.

In addition to the above procedures, fines as outlined in the Safety Violations Policy will be imposed to prevent further safety violations.

It should be specifically understood that any employee who feels they have been treated unfairly may seek consultation with their supervisor's superior to discuss the alleged violation.

VIOLATION: _____
_____
_____

COURSE OF ACTION: _____
_____
_____
_____
_____

PROJECT: _____ DATE: _____

EMPLOYEE NAME: _____

EMPLOYEE SIGNATURE: _____

SUPERINTENDENT: _____

REVIEWER'S SIGNATURE: _____

# SAFETY VIOLATION POLICY

Ziolkowski Construction Inc. (ZCI) will make periodic Safety Inspections of all Projects and submit a Written Report of findings and recommendations for each inspection to the Superintendent and the Subcontractors who are in violation of Safety Regulations. These reports must be discussed during the Weekly Safety Meetings with employees and subcontractors. All subcontractors are required to attend ZCI's weekly safety meetings held at all jobsites.

As a condition of the Subcontract Agreement, to assist in our efforts to provide a safe workplace, the following violations and penalties are included in this Safety Program. Fines imposed upon subcontractors will result in the issuance of a Deduct Change Order to the Subcontract Agreement. All such fines shall be credited to the cost of the work. Fines imposed upon ZCI Projects will be deducted from the Project Bonuses for the Division Manager, the Project Manager, and the Superintendent.

## VIOLATIONS AND PENALTIES

1. Failure to wear and enforce the use of ANSI Z89.1-1997 approved hard hats during the portion of the project that Ziolkowski Construction, Inc. deems appropriate will result in a fine in the amount of three hundred fifty dollars ($350) per individual and per instance.
2. Failure to wear ANSI Z87.1-1989 approved eye protection when appropriate will result in a fine of three hundred fifty dollars ($350) per individual and per instance.
3. The ability of all personnel to be able to hear instructions, warning horns and other sounds present in the workplace require that the use of audio equipment, i.e. AM/FM radios, CD players, cassette players, personal cell phones, digital music players, etc. shall not be allowed on the project. Violations of this requirement will result in a fine of two hundred dollars ($200.)
4. Material shall not be stored within six feet of a floor opening or edge. Failure to store material in an appropriate manner and in the site designated areas will result in a fine of five hundred dollars ($500) and a back charge in the amount of all labor, equipment and materials expended by Ziolkowski Construction, Inc. to relocate the material.
5. Trenching and excavation work must comply with OSHA standard 29 CFR part 1926.650. A competent person must inspect all trenches and excavations and certify their compliance. Failure to properly slope, shore, bench and position the spoil pile will result in a fine of five hundred dollars ($500) and a back charge in the amount of all labor, equipment and materials expended by Ziolkowski Construction, Inc. to remedy the excavation.
6. Exposed rebar and other material that may pose a puncture hazard shall be covered in such a manner to comply with OSHA regulations. Mushroom style caps often do not provide the protection necessary for a safe worksite and may not be adequate. Failure to properly cover these objects will result in a fine of seven hundred fifty dollars ($750) and a back charge in the amount of all labor, equipment and materials expended by Ziolkowski Construction, Inc. to remedy and properly cover the objects.
7. All hot work, i.e. burning, welding, cutting, grinding, etc. shall require the utilization of a dedicated fire watch worker with a 20# ABC fire extinguisher for the entire duration

of the operation and for one hour following completion. Failure to comply will result in a fine of eight hundred dollars ($800.)

8. All compressed gas, oxygen, acetylene or L.P. containers must be stored in an approved manner. Failure to do so will result in a fine of three hundred fifty dollars ($350) per bottle and per occurrence.
9. All extension cords and portable power tools must be protected through the use of Ground Fault Circuit Interrupters. Failure to utilize this form of protection will result in a fine of two hundred fifty dollars ($250.)
10. Temporary, and permanent electrical cabinets and equipment having live parts shall be guarded against accidental contact through appropriate means. Failure to comply with OSHA 1926.403 will result in a fine of one thousand dollars ($1000.)
11. All scaffolding on site must meet with OSHA regulations 1926 subpart L and must be erected, dismantled, and used under the supervision of a competent person. In addition, guardrails must be installed on all scaffolding ten feet or more in height. All scaffolding that does not meet these requirements must be immediately fixed or dismantled. Failure to comply with these requirements will result in a fine of one thousand dollars ($1000) per person and per occurrence.
12. Appropriate fall protection and fall prevention equipment must be provided for all employees exposed to potential fall hazards of six feet or more. In addition, any employee who recognizes that a fall hazard exists must take appropriate action to ensure that the hazard is corrected and must not remove any fall prevention measures that have been put in place. Failure to comply with this requirement will result in a fine of one thousand dollars ($1000) per person and per occurrence.
13. Floor openings and perimeters must be properly guarded to prevent fall hazards. Failure to install or removal of said protection will result in a fine of one thousand dollars ($1000) per person and per occurrence and a back charge in the amount of all labor, equipment and materials expended by Ziolkowski Construction, Inc. to install the necessary protection.
14. All employees driving ZCI vehicles will comply with ZCI's Company Vehicle Policy. Failure to enforce and comply with this policy will result in a fine of five hundred dollars ($500) and revocation of all driving privileges.
15. All employees performing work from or utilizing any type of aerial lift must have received training as outlined in OSHA 1926 Subpart L and must comply with all requirements outlined therein. Failure to operate an aerial lift in accordance with OSHA regulations will result in a fine of one thousand dollars ($1000.)

All other OSHA, ANSI, or ZCI rules and regulations noted in violation (Ziolkowski rules and regulations are posted in the jobsite trailer) will be reviewed by Ziolkowski Construction\ and be fined accordingly. The principles of Management Control commonly applied to cost, schedules, quality and productivity are equally applicable to improving safety of the project. The full cooperation of everyone is essential to carry out this program successfully.

# FIRST AID AND ACCIDENT REPORTING

1) First aid is defined as the immediate and temporary care given to the victim of an accident or sudden illness until the services of a physician can be obtained.

2) Each job shall have sufficient first aid supplies to care for their particular size work force. First aid supplies are periodically checked and kept up to date. First aid kits contain emergency eye wash solution.

3) Each job should have posted by a telephone the name, number, and address of a doctor, clinic, hospital, and ambulance service.

4) In emergency cases, always use an ambulance, never a car or truck.

5) Never move a person with a broken or fractured bone unless there is a greater danger in leaving him or her where in the area.

6) Use extreme care in case of fractured spine, neck, or skull. Do not move the person and get immediate medical help.

7) In cases of near drowning, gas poisoning, electric shock, heart failure or suffocation; attempt to restore breathing with artificial respiration while another person calls for a fire department resuscitator.

8) In cases of severe bleeding attempt to control bleeding by putting a clean cloth over the wound and applying direct pressure.

9) The most important thing to do for an injured person is to keep him/her quiet, protected and reassured that everything possible is being done for him/her as quickly as possible.

10) Anyone injured on the job, no matter how small the injury, shall report the injury to his or her foreman immediately.

11) The foreman shall fill out an accident report on any person sent to a doctor, hospital or clinic.

12) In case of lost time, serious injury, or fatality, the foreman should notify the Company Safety Director and the main office immediately.

13) Foreman should also interview any witnesses and obtain statements concerning lost time cases, fire, damage, theft, equipment damage, and vehicle accident.

14) When there is an accident at the job site, attend to the injury at once. Inform the hospital that it is a workman's compensation injury, and all bills should be sent to Ziolkowski Construction, Inc.

15) Prepare an accident report and send it to the Safety Director in the office on the same day. Make certain the report is complete and fully explains what happened.

16) If the employee receives any bills, have them sent to the Safety Director in the office.

17) If an employee requires non-emergency medical treatment, the site supervisor or his/her designated person shall drive the injured worker to the clinic. Under no circumstances shall the employee drive him/herself.

18) Unless the jobsite is located in or very near a medical clinic, the jobsite needs a designated employee trained in first aid procedures.

Site supervisors and key foreman are trained in First Aid by the Red Cross or an equivalent organization.

# FAMILY AND MEDICAL LEAVE ACT

The Family and Medical Leave Act **(FMLA)** requires covered employers to provide up to 12 weeks of unpaid, job-protected leave to "eligible" employees for certain family and medical reasons. Employees are eligible if they have worked for a covered employer for at least one year, and for 1,250 hours over the previous 12 months.

## REASONS FOR TAKING LEAVE:

Unpaid leave must be granted for any of the following reasons:

a) To care for the employee's child after birth, or placement for adoption or foster care.
b) To care for the employee's spouse, son, daughter, or parent, who has a serious health condition.
c) For a serious health condition that makes the employee unable to perform the employee's job.

At the employer's option, certain kinds of paid leave may be substituted for unpaid leave.

## ADVANCE NOTICE AND MEDICAL CERTIFICATION:

The employee may be required to provide advance leave notice and medical certification. Taking of leave may be denied if requirements are not met.

a) The employee ordinarily must provide 30 days advance notice when the leave is "foreseeable."
b) An employer may require medical certification to support a request for leave because of a serious health condition and may require second or third opinions (at the employer's expense) and a fitness for duty report to return to work.

## JOB BENEFITS AND PROTECTION:

a) For the duration of FMLA leave, the employer must maintain the employee's health coverage under any "group health plan."
b) Upon return from FMLA leave, most employees must be restored to the original or equivalent positions with equivalent pay, benefits, and other employment terms.
c) The use of FMLA leave cannot result in the loss of any employment benefit that accrued prior to the start of an employee's leave.

## UNLAWFUL ACTS BY EMPLOYERS:

FMLA makes it unlawful for any employer to:

a) Interfere with, restrain, or deny the exercise of any right provided under FMLA;

b) Discharge or discriminate against any person for opposing any practice made unlawful by FMLA or for any involvement in any proceeding under or relating to FMLA.

## ENFORCEMENT:

a) The U.S. Department of Labor is authorized to investigate and resolve complaints of violations.
b) An eligible employee may bring a civil action against an employer for violation.

FMLA does not affect any Federal or State law prohibiting discrimination or supersede any State or Local Law or collective bargaining agreement which provides greater family or medical leave rights.

## FOR ADDITIONAL INFORMATION:

Contact the nearest office of the Wage and Hour Division, listed in most telephone directories under U.S. Government, Department of Labor.

# RETURN-TO-WORK POLICY

It is the policy of our company to maintain and support a Transitional Employment return-to-work (RTW) program. This program is designed to minimize the disruption and uncertainty that can accompany work and non-work-related injury or illness for both the company and for all employees.

It is our goal to maintain a safe workplace for our employees. When an injury does occur, our RTW program helps make the process of returning to work as smooth and efficient as possible.

The success of this program is the responsibility of everyone in the company, from top management to every employee. Only by working together can we provide a safe and secure workplace.

We all should be alert for potential accidents and strive to eliminate them. If they occur, let us work together to minimize the effects. These efforts will benefit us all.

Thank you for your cooperation and commitment to our Return-To-Work Program.

- **Policy**
  - It is the policy of Ziolkowski Construction, Inc to provide employees who are temporarily restricted from performing some or all-of their regular job duties, due to a work-related injury, an opportunity to return to the workplace and contribute whenever possible.

- **Description of the RTW / Transitional Work Program**
  - Transitional work is defined as the period of-time when the employee returns-back to the workplace with restrictions, modifications, or in an alternative capacity until they progress back into their full job duties. Transitional Work is temporary in nature and is the graduated return to work based on the employee's progress during the recovery process. As indicated, transitional work is temporary in nature and can last up to 90 days.

- **Purpose and goals**
  - Reduce the medical, disability, and lost time costs.
  - Reduce indirect accident costs.
  - Establish a more stable workforce.
  - Enhance the physical and psychological recovery process for the injured worker.
  - Enhance the injured employee's sense of confidence and well-being.
  - Minimize the chance of re-injury.

- **RTW Procedures - Assignment to Transitional Work**
  - The purpose of transitional work is to safely reintegrate the employee back into the work environment as soon as possible. It is neither a respite nor is it punitive in nature, nor is it to create an undue hardship on the operations of each respective department. We will endeavor to bring our employees back to work whenever possible. The work will be contributory and add value to our company's work

efforts. The task that the employee will be performing will contribute to daily business operations in a beneficial manner.

- **Return to Work Placement Process**
  - Upon receiving appropriate documentation from a physician, the employee may RTW on a temporary transitional work basis for a period of up to 90 days.
  - In order that the employee and their immediate supervisor understand the restrictions and transitional work assignment, the Employee RTW letter needs to be sent to the employee who is returning to work.
  - Transitional work restrictions may require an employee to change shifts in order to accommodate their restrictions. Therefore, employees working on transitional duty must be available to work any shift as necessary.

- **Employee Rights and Responsibilities**
  - Employees on transitional work do not forego their rights as a company employee and are expected to abide by all Ziolkowski Construction, Inc policies and procedures.
  - While on transitional duty, the employee will earn the same base wage rate as that of their pre-injury position, and they will continue to accrue sick, vacation, and holiday time as provided under the applicable polices. The employee must notify their manager/supervisor and/or Human Resources representative of all scheduled and unscheduled absences.
  - Employees are also subject to all applicable employment policies and procedures while on transitional duty. They are expected to participate in all treatment that is reasonably essential to promote their recovery, including but not limited to, keeping all scheduled appointments with occupational health care providers. Non-compliance may result in an interruption of benefits and could jeopardize employment.
  - Any and all changes in the employees' restrictions and transitional work status must be reported to their manager/supervisor and/or human resources representative immediately with the appropriate documentation. Ziolkowski Construction, Inc reserves its ability to exercise its rights in accordance with applicable state laws regarding an employee's diagnosis, treatment plan, and status.

# JOB RESPONSIBILITIES - SAFETY

## SAFETY DIRECTOR RESPONSIBILITIES

a) Shall be responsible for the administration and implementation of the Construction Safety and Health Regulations as they apply to company construction projects. In addition, he or she shall administer the company safety program and see that it is put into effect and administered as outlined below. He acts as the liaison for Ziolkowski Construction, Inc for insurance, health, fire prevention, and medical/first aid.
b) Will monitor all accidents that occurred on all projects. These will be reviewed to determine type and degree of accident so that corrective measures may be taken through safety talks to personnel, bulletins to employees, purchase of new equipment, or change in work procedures.
c) Shall see that all sub and trade contractors abide by the ZCI Health and Safety Program and that documentation is made of any alleged violations.
d) Shall maintain and update a set of basic safe work rules. The Safety Director will explain safety rules to superintendents and supervisors who, in turn, will discuss these with employees during on-the-job safety talks. Company safety rules will be posted at all job sites.
e) Will periodically conduct safety inspections and file reports.
f) Will provide safety training for employees.
g) Will read, review, and provide the manager of construction, general superintendents, project managers and project superintendents with updated Construction Safety Standards. He or she will make necessary corrections in company policy and work procedures by advising the manager of construction, general superintendents, project manager, project superintendents, and supervisors of changes in the IOSHA rules and regulations.
h) Through the purchasing section, will see that all vendors are advised of the company's Health and Safety Program as it applies to vendor and supplier personnel entering the job site. In addition, all purchase orders will require compliance with IOSHA and the Federal Construction Safety Act.
i) Will meet regularly with the superintendents to review safety procedures on the job and, in general, check on the superintendents and supervisors' compliance with the company Health and Safety Program.
j) The Safety Director reports directly to the Chief Executive Officer and has the authority to immediately stop or modify any situation of work or procedure, which he or she deems likely to result in injury or loss.

## CORPORATE MANAGEMENT

a) Read and review the Construction Safety Standards and become knowledgeable of Federal, State and Local Standards.
b) Support and enforce the Ziolkowski Construction, Inc. Health and Safety Program.
c) Make necessary appropriations to maintain an effective Health and Safety Program.

d) Discuss ongoing projects and current and future concerns in regards, to safety with the Safety Director and all Division Managers.
e) Communicate the Ziolkowski Construction, Inc safety culture on all site visits.
f) Discuss safety at staff meetings, job site meetings, and all other appropriate occasions.
g) Review all accident reports.

## PROJECT MANAGER RESPONSIBILITIES:

a) Read and review the Construction Safety Standards and become knowledgeable of Federal, State and Local Standards.
b) Be responsible to see that an analysis is made of the plans and specifications and a study made of the site to determine the exposure to accidents that may develop. Particular attention will be given to protection of the public and in fire prevention facilities.
c) Read and review the company Health and Safety Program on each new project and make amendments or additions that will be applicable to a particular job or owner's requirements.
d) See that, at the time of the pre-award conference, the name of the sub or trade contractor's Safety Director is obtained and that a copy of the sub or trade contractor's safety program is obtained. If he/she has no safety program, the project manager will advise the sub or trade contractor's representative of our company's program and require him/her to adopt a safety program that meets or exceeds all state, federal and local requirements and effectively implement and maintain it. The project manager will transmit to the safety director the name of the sub or trade contractor's Safety Director and a copy of their safety program and/or inform the safety director of the absence of such a program on the part of the sub or trade contractor.
e) In cases where sub or trade contractor's compliance is not obtained, contract the sub or trade contractor's Safety Director. The project manager shall keep your safety director/officer informed of such cases.
f) Be safety oriented when visiting the job site. Report to the project superintendent all unsafe acts and conditions either of our company's or sub or trade contractor's personnel.
g) Request and review site inspection reports for the presence of asbestos, lead paint, or other hazardous materials. Hazardous materials may also include but is not limited to animal droppings and mold. Review reports with the site superintendent. In the event the owner does not have such reports, request they be compiled and supplied for review.
h) If any of the hazardous items listed above are present in the workplace, inform the construction manager and/or owner that such items must be abated by the owner.
i) Provide site superintendent with scaffold erection plan for any project requiring special scaffolding setups or non-standard scaffolding.
j) Review all accident reports.

## PROJECT SUPERINTENDENT RESPONSIBILITIES:

a) The project superintendent is responsible for the implementation of the company on-site Health and Safety Program.
b) Make available all necessary personal protective equipment, job safety materials, and first-aid equipment.
c) Instruct the employees that safe practices are to be followed and safe conditions maintained throughout the job.
d) Inform the employees that they are not to take chances—rather that they instruct the men in proper and safe procedures.
e) Instruct employees individually regarding their safety responsibilities.
f) Require all sub or trade contractors and their prime subcontractors to adhere to all safety regulations. The superintendent will report any unsafe conditions on sub or trade contractor portions of the work to the safety director.
g) Review all accidents with employees and see that corrective action is taken immediately.
h) File complete and concise accident reports with the Safety Director within 24 hours.
i) Be familiar with the laws pertaining to safety and their basic requirements.
j) Monitor all "Toolbox Safety Talks."
k) The project superintendent will assume the responsibilities of the job.
l) Display OSHA Form 300A from February 1 to April 30.
m) Provide a copy of New Hire Safety Orientation form to all new employees.
n) Immediately report to the Safety Director all incidents, including near misses, which involve medical, insurance, vehicle, or liability issues.
o) In the event hazardous materials are encountered on the project, immediately stop work in the area and inform the site Construction Manager or owner that such items need abated by the owner. These hazardous items may include, but are not limited to asbestos, lead paint, animal droppings, and mold.

## FOREMAN RESPONSIBILITIES:

a) See that the entire safety program is carried out at the work level.
b) See that the employees do not commit unsafe acts.
c) Make sure that unsafe conditions do not exist in their work areas.
d) Make sure that necessary protective equipment is on hand and used.
e) Instruct all employees in safe procedures and job safety requirements. Follow up and insist on compliance.
f) Discuss safety and have personal contacts with employees on every operation
g) See that all injuries are cared for properly and reported promptly.
h) Investigate all accidents. File a complete accident report with the superintendent and correct the causes immediately. Use OSHA form 101 or equivalent.
i) Be familiar with the laws pertaining to safety and their basic requirements.
j) In the event hazardous materials are encountered on the project, immediately stop work in the area and inform the site Construction Manager or owner that such items need abated by the owner. These hazardous items may include, but are not limited to asbestos, lead paint, animal droppings, and mold.

## EMPLOYEE RESPONSIBILITIES:

a) Work according to good safety practices as posted, instructed, and discussed.
b) Refrain from any unsafe act that might endanger himself/herself/herself or their fellow workmen.
c) Use all safety devices provided for his/her protection.
d) Immediately report any unsafe situation or acts to his/her supervisor or safety director, near misses, accidents, or injuries immediately.
e) Ask supervisor if unsure of safety and/or work practices.
f) In the event of an injury, report to your foreman or superintendent for first-aid treatment. In all cases, the employee, the supervisor(s) or superintendent shall report and/or record all accidents.
g) Maintain a clean and safe work area.
h) Be a safe workman off the job as well as on.
i) Utilize Personal Protective Equipment according to Ziolkowski Construction, Inc's policies and OSHA Standards.

## ADMINISTRATION

a) Transmit all public liability and employee accident reports to the Safety Director within 24 hours.
b) Immediately inform the Safety Director of all accidents.
c) Ensure that all subcontractors cannot perform work without the proper insurance in effect and contracts in place.
d) Notify subcontractors that they must attend pre-start meetings, progress meetings, and safety orientations, and post-job safety performance reviews.

## SAFETY COMMITTEE RESPONSIBLITIES:

a) In general, the committee shall serve in an advisory capacity to the safety director on determining a general plan of action for the company's safety policy as set by management.

b) More specifically, the members of the committee shall familiarize themselves with construction safety standards and assist in formulating plans for the application of the standards on all projects.

# SAFETY IS EVERYONE'S BUSINESS

# FIRE PROTECTION
# and
# EMERGENCY EVACUATION PLAN

## Responsible:

- Controlling Contractor at the Job Site

## Purpose:

- The purpose of this procedure is to outline the steps necessary to ensure employee safety in the event of fire or other emergencies.

## EMERGENCY ESCAPE PROCEDURES:

Upon the knowledge of an emergency, situation all personnel must evacuate the building. Note the escape route assignments posted by the exit ways.

a) Temporary exits will be marked with signs.

b) The procedure for evacuation of employees who operate essential equipment is as follows:
   - Employees crucial to the operation of essential equipment must ensure that the equipment is properly taken out of service and immediately evacuated through a safe exit.

c) The procedure to be used for employee accountability after an emergency evacuation shall be as follows:
   - Evacuated personnel shall report to their foreman who shall account for all employees after the evacuation is complete. The foreman must then report to the respective superintendent at or near the company offices, or on the jobsite.

d) Medical duties will be performed by:
   - The on-site emergency personnel (supervisor, or first aid trained employee) and local ambulance and fire departments will perform medical duties for injured personnel. (**NOTE:** Emergency phone numbers are posted on the bulletin board in trailer.)

e) The preferred means of reporting fires and other emergencies shall be as follows:
   - Notify the following personnel:
     - Safety Director
     - Emergency Medical Technician
     - Site Superintendent/Foreman

## SOUND THE EVACUATION ALARM, IF NECESSARY!

**NOTE:** If during a particular shift the Safety Director is not available, notify the Yard Superintendent.

## ALARM SYSTEM:

The alarm system shall consist of:

a) Audible alarms that are located at strategic positions. An employee working in any location of the job site will be able to hear the alarm system when activated. The alarms shall have a unique loud, crisp blast tone. (Example: Aerosol Sound Horn)
b) Temporary alarm system should be installed on every floor.

## EVACUATIONS:

a) Evacuations shall be conducted in the following manner:
    - Upon sounding of the alarm, all employees must immediately exit the building and report to their foreman at the company trailer.
b) The following personnel are designated to assist in the safe and orderly evacuation of employees:
    - Safety; security; management personnel; and fire department officials.

## FIRE PREVENTION:

a) The following is a list of major workplace fire hazards:
    - Hot work operations (Welding, Burning, Grinding, etc.)
    - Flammable material storage (Paints, Compressed Gasses, etc.)
    - The use of portable heater units.
    - Smoking
    - Poor Housekeeping
b) Responsibility for maintenance of equipment and systems installed to warn employees rests with the general contractor on the jobsite.
c) Responsibility for control of fuel and ignition source hazards rests with the individual contractors.

## HOUSEKEEPING:

a) Housekeeping shall be maintained to control the accumulation of flammable and combustible waste and residues.
b) No storing material, equipment etc., in stairways.
c) No blocking exits.
    - Contractors shall be responsible for daily housekeeping in their work areas.
    - Weekly site safety tours with major contractors shall be conducted by the Safety Division to enforce and monitor housekeeping.

## FIRE STANDARDS:

a) Fire extinguishers must be located every 3,000 square feet, or every 100 lineal feet.
b) Fire extinguishers must be at the top and bottom of every stairway.

c) Office trailers and storage trailers must have fire extinguishers.
d) Fire Extinguishers shall be inspected monthly and subject to annual maintenance check.

e) Employees who are required to use fire extinguishers will be trained in their use and training should be reviewed annually.

## MAINTENANCE:

a) The procedure established for maintaining heat-producing equipment is covered under the hot work permit system.

## TRAINING:

Training shall be conducted in the following manner:

a) Employees shall be made aware of the emergency fire evacuation plan during employee indoctrination, and at any time an amendment is made to this plan.

## DIAGRAM OF SITES AND OTHER STRUCTURES:

a) Alarm Locations
b) Exits
c) Escape Path

# HAZARDOUS MATERIALS TRAINING HANDBOOK

## INTRODUCTION:

As an employee of Ziolkowski Construction, Inc., you have been provided with a copy of the company's Written Hazard Communication Program, which advises you of your rights and of the company's responsibilities under the Right to Know Law. This handbook is intended to provide further, practical information and training about chemicals in the workplace, how to become more knowledgeable about hazardous chemicals, and what you can do to protect your physical health and safety.

Please read this handbook and Written Hazard Communication Program thoroughly. If you have any questions, or if you do not understand any portions of the handbook or the program, be sure to contact your Superintendent or Safety Officer. Ziolkowski Construction, Inc. wants all of its employees to be aware, careful, and comfortable with the products and materials used in the workplace or on the jobsite.

## HAZARDS OF CHEMICALS IN THE WORKPLACE:

Many of the safety hazards of products and materials used in the workplace have been known and understood for some time. Instructions and warnings for the safe use of products, and the safe operation of equipment, are familiar to most employees. For example, care must be taken not to use gasoline near an open flame if explosion and fire are to be avoided. Likewise, the combination of certain chemical substances may result in explosion, fire, or the release of dangerous gases. Apart from such obvious safety-related consequences, it has been determined that exposure to certain substances may, in the long or short run, present a physical health hazard to some individuals. Health hazards may cause measurable changes in the body, indicated by signs and symptoms in an exposed person. Just as employees should be informed of the safety hazards they might encounter in the workplace; they should also be informed of the potential health hazards of the job.

The health hazards of chemicals used in the workplace are difficult to measure, since most chemicals have not been adequately tested. In addition, many of the signs or symptoms of chemical exposure occur in people who do no work with chemicals, so it is difficult to separate chemical effects from naturally occurring illnesses. Generally, health hazards may be categorized as "acute" or "chronic", based on their severity and duration. "Acute" effects occur rapidly, as a result of short-term exposure, and are of short duration. "Chronic" effects occur as a result of long-term exposure and may continue for a long period of time.

The goal of measuring and defining every possible health hazard in the workplace is impossible to achieve. Nonetheless, employees should be aware of the possible health effects of exposure to chemicals, which the chemical manufacturers have determined, are or may be hazardous. The Federal Occupational Safety and Health Administration has published the following criteria for chemical products and materials. If a product meets any of the criteria, it is considered a health hazard.

a) Carcinogen: Products or materials, which may cause cancer.
b) Corrosive: Chemicals, which cause visible destruction of, or irreversible alteration in living tissue by chemical action at the site of contact.
c) Highly Toxic: Chemicals, which, in certain small doses, may cause illness or death if administered orally, applied to the skin, or inhaled.
d) Irritant: Chemicals, which cause reversible inflammation of living tissue by chemical action at the site of contact.
e) Sensitizer: Chemicals, which cause an allergic reaction in most people after, repeated exposure.
f) Toxic: Chemicals, which`, in certain measured doses, cause illness or death, if administered orally, applied to the skin, or inhaled.
g) Target Organ Effects: Chemicals which may damage or reduce the capacity of a person's blood, skin, eyes, nerves, or internal organs, such as liver, lunges, etc.

Chemical manufacturers must evaluate the substances they produce and make a hazard determination. Hazard evaluation covers the acute and chronic effects of exposure to chemicals in the areas outlined above. Ziolkowski Construction, Inc. relies on the expert evaluations and hazard determinations of the chemical manufacturers for products used in the workplace. Ziolkowski Construction, Inc. is not responsible for the judgments of the manufacturers or for the accuracy of their hazard evaluations and determinations.

## READING AND UNDERSTANDING HAZARDOUS MATERIALS LABELS:

The Right to Know Law requires that the chemical manufacturer or distributor label all containers of hazardous chemicals. Each shipment of hazardous materials received by Ziolkowski Construction, Inc. must also be accompanied by a Safety Data Sheet (SDS) prepared by the chemical manufacturer or distributor. Employees using materials considered hazardous should be familiar with the labels and the SDS(s) and should understand their contents.

Every hazardous material label must identify the hazardous chemical(s) contained in the box, bag, barrel, bottle, can, cylinder, tank, drum, or other vessel on which the label is printed or attached. The label will state both the scientific name and the common name of the chemical or chemical mixture in the container. These names will correspond with the names contained on the SDS for that particular shipment of hazardous materials. The label must also include the name and address of the person who can provide additional information about the hazardous chemical and about the appropriate procedures to follow in an emergency. Labels must not be removed or defaced. Finally, and most importantly, the label must contain a hazard warning, which conveys the possibility of damaging health effects and dangerous consequences of exposure to the chemical. The hazard warning may be in the form of works, pictures, symbols, or a combination of these, and will state, for example, whether a chemical is flammable, combustible, explosive, toxic, corrosive, or carcinogenic. Further information about the hazards of particular chemicals can be found in their specific SDS(s).

All SDS's received by Ziolkowski Construction, Inc., from chemical manufacturers are available to employees during regular working hours. The Written Hazard Communication Program of Ziolkowski Construction, Inc. states where and how employees may find the SDS(s) for hazardous materials in the workplace. Every SDS must identify the hazardous chemical(s) by scientific and common names, and must include the name, address, and telephone number of the person who prepared the SDS and who can provide additional information about the chemicals(s). The dates upon which the SDS was prepared or updated must also appear on every SDS.

An employee who has read a hazard-warning label, and wants more detailed information about the hazardous chemical, should consult the SDS file. Any employee who has questions or concerns about hazardous materials in the workplace should also consult the SDS file. Every SDS must provide the following information about the chemical(s) that have been determined by the manufacturer to be hazardous:

a) The chemical and common names.
b) The physical and chemical characteristics of the substance (for example, the flashpoint, vapor pressure, odor, etc.)
c) The physical hazards (for example; flammable, explosive, combustible, etc.)
d) The health hazards (for example; toxic, corrosive, carcinogenic, etc.)
e) The signs and symptoms of exposure to the substance, and any medical conditions, which it might aggravate.
f) The primary routes of entry (for example; by inhalation, ingestion, etc.)
g) Whether the substance is carcinogenic (cancer-causing).
h) The OSHA and manufacturer's exposure limits and recommendations.
i) Precautions for safe handling (for example; hygienic practices, how to clean up spills, etc.)
j) Control measures which may be taken (for example, work practices, protective equipment, etc.)
k) Emergency first aid procedures.

The information that must appear on the SDS may be in any order. If the supplier of the SDS has no information for any of the above categories, this fact must be noted on the SDS. Every SDS is prepared by the chemical manufacturer or distributor on the basis of the evaluations and hazard determinations they have made for various chemicals and chemical substances. As previously mentioned, Ziolkowski Construction, Inc. is not responsible for the contents or the accuracy of hazardous material labels or the Safety Data Sheets.

To further assist employees in reading and understanding hazardous material labels and SDS(s), a list of common terms and their definitions are included at the end of this handbook. Many of the scientific terms and abbreviations set forth in the list will be used on the labels and the SDS(s), which are available to all employees of Ziolkowski Construction, Inc. All employees of ZCI speak and understand English.

## HOW TO LESSEN OR PREVENT EXPOSURE TO HAZARDOUS CHEMICALS:

Before starting a job or assignment, every employee should become familiar with the equipment, materials, and products needed to do the job. Operating and use instruction should be thoroughly reviewed and understood before tools or machinery are put into operation. Likewise, the labels and hazard warnings on containers of chemical products or substances should be read and understood before the containers are opened for use. If the hazardous warning labels are not clear, or if an employee has any concerns or questions about the safe use of a chemical product, he/she should consult the Safety Data Sheet (SDS) for the product or should discuss the matter with his/her immediate supervisor.

Depending on the nature of the job, and the type of chemical(s) involved, special safety procedures may be needed to prevent chemical exposure and to protect the health and safety of employees. Ziolkowski Construction, Inc. relies on the recommendations of OSHA and the chemical manufacturers to safeguard the health of employees who use hazardous materials in the workplace. When required by these recommendations, an employee's immediate supervisor will instruct the employee as to the special work practices and safety rules to be followed when using and handling hazardous chemicals. For example, some substances should be used only in well-ventilated areas; some substances require regular clean-ups or hand washing after use. Employees will be instructed, on an individual or group basis, about any special work rules for handling certain hazardous materials, to reduce or prevent exposure.

In addition to safety rules and practices, personal protection devices or equipment are sometimes recommended by chemical manufacturers to limit potentially harmful exposure to their products. Personal protection devices may include respirators, masks, eye goggles, gowns, gloves, etc. Equipment may include exhaust fans, air circulators, engineering devices, continuous monitoring devices, etc. If an employee is assigned to a job using hazardous materials for which protection devices or equipment are recommended, the employee's immediate supervisor will discuss these protective measures and devices with the employee. Depending on the circumstances and the location of the job, the employee, a contractor or our company will provide the necessary protective devices, if any, to reduce or prevent chemical exposure. Instruction about the use of the devices will be given on an individual or group basis, by the employee's immediate supervisor.

Employees are encouraged to ask their supervisors any questions they might have about the safe use of hazardous materials in the workplace. Employees should read all hazard-warning labels, review SDS(s), and listen to the instruction of their supervisors. Although reasonable efforts will be made to periodically inform and instruct employees about safe work practices, exposure limits, the use of protection devices, etc., every employee should take the time to learn, understand, and appreciate the possible health and safety hazards involved in the use of chemical products and materials. This knowledge, when combined with careful and attentive work habits, will protect the health and safety of all employees.

## DETECTING THE PRESENCE OF HAZARDOUS CHEMICALS:

The health effects and safety hazards of chemical materials and substances can best be reduced or avoided by following the safety instructions and recommendations provided by the chemical manufacturers. Often, limited exposure to hazardous chemicals is unavoidable under normal working conditions. If an employee is concerned about the level or extent of his or her exposure while using a substance, the employee should discuss the matter with his or her immediate supervisor. Employees should be aware of the possibility of an excessive, uncontrolled release of some hazardous substances in the workplace, resulting in exposure beyond what is considered normal for a particular job or assignment. This type of release and exposure can occur if proper safety precautions are not taken, or if, for example, protection equipment fails, or containers of hazardous materials are broken or ruptured. Unless monitoring equipment is in place to detect an accidental, uncontrolled release of hazardous chemicals, it will be up to the employees to detect and report such an occurrence.

Hazardous chemicals, which may have health effects come in the form of solids, liquids, gases, or aerosols (gases and propellants under pressure). The release of a chemical in its original form may be harmful. Likewise, chemicals that react with water, air, or other substances may change their form and release hazardous substances into the workplace. Extreme care must be taken in handling hazardous chemical containers, and no chemical substances should be confined with water or any other substance except as recommended by the manufacturer.

To detect the presence of hazardous chemicals in the workplace, employees must rely on their senses and their physical reactions. Often, the appearance of a substance may change, signaling a release of hazardous chemicals, e.g. a substance may change color or texture, or may change its form from solid to liquid, solid to gas, liquid to gas, etc. All employees should be alert for any visual changes in hazardous observations. Another way to detect the release of hazardous chemicals is by its odor. If an employee notices an odor that is stronger or different than the odor usually found in the areas where hazardous chemicals are stored or used, this fact should be immediately reported to his or her supervisor. Finally, hazardous chemicals may be detected by an employee's physical reactions to the chemical exposure. Emergency exposure procedures should be followed when an employee exhibits or experiences any of the following physical signs or symptoms in the presence of hazardous substances: dizziness; shortness of breath; tightness in the chest; vomiting; coughing or heaving; burning; itching; or watering of skin, eyes, nose, or mouth; appearance of a rash or swelling; loss of consciousness; severe headache; and other abnormal physical conditions or reactions.

Before starting a job or assignment, every employee should become familiar with the types of hazardous materials needed for the job, and with possible acute and chronic health effects of those particular materials. This information can be found on the labels and the SDS(s) for the product. Signs and symptoms of exposure, and the health and physical hazards of a chemical can be found in its SDS. Knowledge of these facts, and attention to the job can help employees detect the presence of hazardous chemicals and avoid possible harmful exposure.

## EMERGENCY EXPOSRE PROCEDURES:

Should an accidental or uncontrolled release of hazardous chemicals occur in the workplace or on the jobsite, employees should take the following steps:

a) The employee's supervisor or the job foreman should be contacted immediately. The nature of the emergency and the name of the chemical involved should be reported to him or her. If possible, bring the chemical container label to the supervisor.
b) The Office Manager, Job Foreman, Field Superintendent or other person having access to the SDS(s) for the chemical involved should also be notified immediately.
c) Stay calm and follow the instructions of your immediate Supervisor or Job Foreman with regards to the steps to be taken to protect the health and safety of all affected employees.

Ziolkowski Construction, Inc., follows the emergency procedures recommended by the chemical manufacturers and distributors, as set forth on the labels and SDS(s), or qualified medical personnel will be called. Ziolkowski Construction, Inc. is not responsible for the effectiveness of the emergency recommendations provided by the chemical manufacturer and is not responsible for the outcome of any treatment provided at the scene of a chemical emergency.

## COMMON SDS TERMS:

**Acute Effect**: An adverse effect with severe symptoms occurring very quickly, as a result of a single excessive overexposure to a substance.

**Acute Toxicity:** The adverse effects resulting from a single excessive overexposure to a substance. Usually expressed as a figure denoting relative toxicity.

**Asphyxiate:** A vapor or gas that can cause unconsciousness or death by suffocation. Most are associated with a lack of sufficient oxygen to promote life.

**Boiling Point:** A temperature at which a liquid turns to a vapor. This term is usually associated with the temperature at sea level pressure a flammable liquid gives off sufficient vapors to promote combustion.

**"C" or Ceiling:** In terms of exposure concentrations, this is the number that should never be exceeded even for a short period, for a substance.

**Carcinogen:** A substance or agent capable of producing cancer in mammals.

**cc-Cubic Centimeter:** A volume measurement usually associated with small quantities of liquid. One quart has 946 cubic centimeters.

**Chronic Effect:** An adverse effect with symptoms that develop or recur very slowly, or over long periods of time.

**Chronic Toxicity:** The adverse effects resulting from prolonged or repeat exposures to a substance, usually used as an indicator of relative toxicity for exposures over great lengths of time.

**Combustible:** A term used to classify liquids, gases, or solids that will burn readily. This term is often associated with "flash point", which is a temperature at which a given material will generate sufficient vapors to promote combustion.

**Concentration:** A figure used to define relative quantity of a particular material, such as a mixture of 5 ppm Acetone in air.

**Corrosive:** A material with the characteristic of causing irreversible harm to human skin, or steel by contact. Many acids are classified as corrosives.

**Decomposition:** The Breakdown of materials or substances into other substances or parts of compounds. Usually associated with heat or chemical reactions.

**Dermal:** Used on or applied to the skin.

**Dermal Toxicity:** The adverse effects resulting from exposure of a material to the skin. Usually associated with lab animal tests.

**Evaporation Rate:** The rate at which a liquid material is known to evaporate, usually associated with flammable materials. The faster a material will evaporate, the sooner it will become concentrated in the air, creating either an explosive/combustible mixture or toxic concentration, or both.

**Flash Point:** The temperature at which a liquid will generate sufficient vapors to promote combustion. Generally, a lower flashpoint denotes a greater danger of combustion.

**Flammable:** Any liquid that has a flash point of 100 Degrees F, or below. Also, any solid that can sustain fire and ignite readily.

**General Exhaust:** A term used to define a system for exhausting or ventilating air from a general work area. Not as site specific as localized exhaust.

**"g"-Gram:** A unit of weight. One-ounce equals about 28.4 grams.

**Hazardous Chemical:** Any chemical that is either a physical or health hazard or both.

**Ignitable:** A term used to define any liquid, gas or solid which has the ability to be "ignited", which means having a flashpoint of 140 Degrees F., or less.

**Incompatible:** Materials that could cause dangerous reactions from direct contact with one another.

**Ingestion:** Taking in of a substance through the mouth.

**Inhalation:** The breathing in of a substance in the form of a gas, liquid, vapor, dust, mist, or fume.

**Inhibitor:** A chemical added to another substance to prevent an unwanted change from occurring.

**Irritant:** A chemical that causes a reversible inflammatory effect on the site of contact but is not considered a corrosive. Normally, irritants affect the eyes, skin, nose, mouth, or respiratory system.

**LC-Lethal Concentration:** In lab animal tests, this is the concentration of a substance that is sufficient to kill the tested animal.

**LC50-Lethal Concentration50:** In lab animal tests, this is the concentration of a substance required to kill 50%of the group of animals tested.

**LD-Lethal Dose:** The concentration of a substance required to kill the lab animal used for the test with a specific material.

**LD50-Lethal Dose50**: The single dose concentration of a substance required to kill 50% of the lab animals tested.

**L.E.L.-Lower Explosive Limit:** The lowest concentration, or percentage in air, of a vapor or gas, that will produce a flash fire when an ignition source is introduced.

**Local Exhaust:** The system for ventilating or exhausting air from a specific area such as in welding operations. More localized than general exhaust.

**Melting Point:** The temperature at which a solid, changes to a liquid.

**Mg-Milligram:** A unit of measurement of weight. There are 1000 mg in one gram of a substance.

**Mppcf-Million Particles per Cubic Foot:** A unit of measure usually used to describe airborne particles of a substance suspended in air.

**Mutagen:** A substance or agent capable of altering the genetic material in a living cell. Normally associated with carcinogens.

**NFPA-National Fire Protection Association:** An organization that promotes fire protection/prevention and establishes safeguards against loss of property and/or life by fire. The NFPA has established a series of codes identifying hazardous materials by symbol and number for firefighting purposes. These codes also classify materials in their order of flammability, with 0 being not burnable, up to 4, which means it will burn spontaneously at room temperature.

**Olfactory:** Relating to the sense of smell.

**Oral:** Used in or taken through the mouth into the body.

**Oral Toxicity:** A term used to denote the degree at which a substance will cause adverse health effects when taken through the mouth. Normally associated with lab animal tests.

**Oxidizer:** A substance with yields oxygen readily to stimulate the combustion of an organic material.

**Oxidizing Agent:** A chemical or substance, which brings on oxidation reactions by providing the oxygen to promote oxidation.

**PEL-Permissible Exposure Limit:** An exposure concentration established by the Occupational Safety and Health Administration which indicates the maximum concentration for which no adverse effects will follow.

**PPM-Parts Per Million:** A unit of measurement for the concentration of a gas or vapor in air. Usually expressed as a number of parts per million parts of air.

**PPB-Parts Per Billion:** As above, only expressed as number of parts per billion parts of air.

**Reactivity:** The term which describes the tendency of a substance to undergo a chemical change with the release of energy, often as heat.

**Reducing Agent:** In an oxidation reaction, this is the material that combines with oxygen.

**Respiratory System:** The breathing system, including the lungs, and air passages, plus their associated nervous and circulatory components.

**Sensitizer:** A substance, which on first exposure causes little or no reaction, however, with repeated exposure will induce a marked response not necessarily limited to the exposure site. Usually associated with skin sensitization.

**Specific Gravity:** The weight of a material compared to the weight of an equal volume of water. Usually expresses a material's heaviness. A material with a specific gravity of greater than 1.0 will sink to the bottom of water, whereas a material with a specific gravity of less than 1.0 will float on top of water.

**STEL-Short Term Exposure Limit:** The maximum allowable concentration of a substance that one can be exposed to for less than 15 minutes and not produce adverse health effects.

**Teratogen:** A substance or agent usually associated with cancer, that when exposed to a pregnant female will cause malformation of the fetus. Usually associated with lab animal tests.

**TLV-Threshold Limit Value:** A term used by the Occupational Safety and Health Administration to describe the airborne concentration of a material to which nearly all persons can be exposed to day in and day out, and not develop adverse health effects.

**Toxicity:** The sum of adverse effects of exposure to materials, generally by mouth skin, or respiratory tract.

**Time Weighted Average:** The airborne concentration of a material to which a person can be exposed over an 8-hour workday (an average).

**UEL-Upper Explosive Limit:** The highest concentration of a gas or vapor in air that will sustain or support combustion when an ignition source is present.

**Vapor Density:** A term used to define the weight of a vapor or gas as compared to the weight of an equal volume of air. Materials lighter than air have a vapor density of less than 1.0, whereas materials heavier than air have a vapor density greater than 1.0.

**Vapor Pressure:** A number used to describe the pressure that a saturated vapor will exert on top of its own liquid in a closed container. Usually, the higher the vapor pressure, the lower the boiling point, and therefore the more dangerous the material can be, if flammable.

# HAZARD COMMUNICATION PROGRAM

## INDIANA RIGHT TO KNOW LAW:

The Indiana Occupational Safety and Health Act (IOSHA) has been amended to include requirements for the communication of information regarding the safe handling of hazardous chemicals present in the workplace, with these amendments known as the Right to Know Law.

The law requires a communication program designed to safeguard the handling of hazardous chemicals through labeling of chemical containers, development and availability of Safety Data Sheets, the training of employees working with these chemicals, and a Written Hazard Communication Program developed by the employer.

The law also provides for specific employee rights. They include:

a) The right to be notified (by employer posting) of the location of Safety Data Sheets (SDS).
b) The right to be notified (by employer posting) of new or revised (SDS)(s) no later than five (5) working days after receipt.
c) Employees have the right to request (SDS)(s) from their employers.

Employees are afforded protection from any discrimination or discharge resulting from the request for information regarding hazardous chemicals under the Right to Know Law.

There are important pieces of information to familiarize you with the provisions of the Right to Know Provisions.

One is a copy of the Federal Hazard Communication Standard. This standard is now part of the IOSHA Right to Know Law through adoption. Within the Right to Know Law is a requirement for the posting of information in regard to the Safety Data Sheets.

Applicable posters may be used in the workplace in highlight this information.

A copy of all information noted above along with the SDS file, is located in a designated place by the site superintendent and is available for review by all employees.

For further assistance or questions regarding the Right to Know Law, contact the Superintendent, or Safety Director.

## HAZARD DETERMINATION:

Ziolkowski Construction, Inc. will rely on Safety Data Sheets, or SDS(s), as they will hereafter be referred to, to meet hazard determination requirements.

## SAFETY DATA SHEETS:

SDS(s) will be requested on all purchase orders, from all material suppliers, for products classified as hazardous. The Safety Director will be responsible for compiling and updating a Master SDS File, located in his/her office. This file will contain all SDS(s) received from material suppliers, along with copies of the Indiana Right to Know Law, the Ziolkowski Construction, Inc. Written Hazard Communication Program, and the Hazardous Materials Training Handbook.

The Master SDS File is accessible to all employees during normal working hours. Copies from the file will be made available as requested.

All new SDS(s) received will be noted by the Safety Director on the IOSHA "New or Revised SDS" poster within five days of receipt, and copies will be filed alphabetically as to product name in the master file. The poster is located on the employee bulletin board.

## LABELING:

The Yard Manager will be responsible for seeing that all incoming shipments of products classified as hazardous are suitably stored and checked to see that all incoming containers are properly labeled by the manufacturer as to identity, hazard warning, and responsible party.

The warehouse Superintendent will be responsible for seeing that all employees subject to exposure to hazardous products are notified of the potential hazard.

## EMPLOYEE INFORMATION AND TRAINING:

The Safety Director shall coordinate and maintain records of training conducted by Ziolkowski Construction, Inc.

Upon hiring, each employee will receive a copy of the written Hazard Communication Program, and Hazardous Materials Training Handbook containing information on:

a) Hazards of chemicals in the workplace.
b) How to detect and lessen or prevent exposure to hazardous chemicals.
c) Procedures to follow if exposed to hazardous chemicals.
d) How to read labels and SDS (s).

Each employee will be instructed to read the program and the handbook and will be told that if there are any questions, to contact the Superintendent or Safety Director.

After any question the employee may have answered by the Superintendent, each employee will be required to sign a form indicating the following:

a) He/She has received copies of the Written Hazard Communication Program and the Hazardous Materials Training Handbook.
b) He/She understands and will abide by the guidelines set forth therein.

When any new hazardous products (for which an SDS has been received) is put into use, or before the assignment of a non-routine task involving a hazardous product, all employees exposed to the product will be instructed to read and follow guidelines on the warning label. The Superintendent or Safety Director will see that the SDS is made available to employees if requested, and a copy will be filed in the master file.

Periodic safety meetings will be conducted by the Superintendent or Safety Director, for the purpose of updating employees on the law, new SDS(s), use of hazardous products, and/or any changes in policy. Attendance is mandatory.

## INFORMING CUSTOMERS UPON SALE:

Upon the sale of any product for which an SDS has been received, the customer will receive, if requested, one copy of said SDS, to be provided with the invoice.

## INFORMING CONTRACTORS AND EMPLOYEES ON PROJECT JOBSITE:

Prior to commencing work on a project jobsite, the project manager for said project will:

a) Provide, by way of formal transmittal, two copies of the SDS(s) for all jobsite products classified as hazardous, along with one copy each of the Written Hazard Communication Program and the Hazardous Materials Training Handbook, to the office of the company with which we are contracted.
b) Request in writing, from the company with which we are contracted, the following:

    1. That one copy of all MDS(s) be sent to the project jobsite and made available upon request to all contractors that now have or will have employees on the jobsite.

    2. That said contractors be informed that the SDS(s) provided by Ziolkowski Construction, Inc. are on the jobsite, that their location is posted, and that copies are available upon request.

That all contractors on the site submit the proper SDS(s) for their hazardous materials, and that all SDS(s) be made available to Ziolkowski Construction, Inc. upon request.

Prior to commencing work on the project jobsite, the Superintendent will:

a) Confirm the location where SDS(s) will be stored on site and notify Ziolkowski Construction's designated job foreman of the location.
b) Post the IOSHA SDS poster on the jobsite gang box, indicating the location of the SDS(s) at the jobsite, and the person to whom requests for copies of SDS(s) are to be made.

c) Instruct all Ziolkowski Construction, Inc. employees to keep hazard-warning labels intact on all containers brought to the jobsite, and to observe all warning labels on containers provided by other contractors.

If additional products classified as hazardous are sent to the jobsite after starting work:

a) The Superintendent will notify the Project Manager and the Job Foreman of shipments of hazardous products to the site.
b) The Project Manager, will send, via formal transmittal, two copies of the SDS for said hazardous product to the office of the contractor, indicating the product is now in use at the jobsite. The Project Manager will request, in writing, that the jobsite SDS file be updated within five (5) days.
c) The Superintendent or Safety Director will note the new hazardous product on the IOSHA "New or Revised SDS" poster and post it on the jobsite within 5 days of delivery of the product on the jobsite.

## LIST OF HAZARDOUS CHEMICALS:

At each jobsite, there will be posted a hazardous chemical list for that specific job. This list will be available for all employees and site visitors to review.

# CONFINED SPACE ENTRY

Personnel who are involved in confined space operations face special dangers such as toxic, explosive, or asphyxiating atmospheres or engulfment. To protect our employees, the company has established a written Confined Space Entry Program that establishes guidelines for those who work within confined spaces. No employees are to work in confined spaces without permission of the competent person. The confined space program shall be reviewed annually.

## PERMIT-REQUIRED CONFINED SPACES:

A confined space has the following characteristics:

a) Its size and shape allow a person to enter it.
b) It has limited openings for workers to enter and exit.
c) It is not designed for continuous occupancy.

A permit-required confined space has one or more of the following characteristics:

a) Contains or has potential to contain a hazardous atmosphere.
b) Contains a material that has the potential for engulfing the entrant.
c) Has an internal configuration such that the entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section.
d) Contains any other recognized serious safety or health hazard.

## PERMIT SPACE HAZARDS

1. Hazardous atmosphere:
    a) The air might not have enough oxygen.
    b) The air can be flammable or toxic.
    c) Because of these hazards, entry is defined as placing any part of your body into the permit space.
    d) Engulfment—being trapped in liquid or solid material.
    e) Danger from unexpected movement of machinery.
    f) Electrocution.
    g) Heat Stress.
    h) Becoming wedged into a narrow part of the space and suffocating.
    i) Physical dangers such as falls, debris, slipping ladders.

Each of these hazards is more serious in a confined space, since rescuers can have a difficult time reaching you if you need help.

## THE PERMIT SPACE PROGRAM:

A trained supervisor, or the safety director, will take these steps to help control the hazards of permit spaces:

a) Identify all permit spaces in your workplace.

b) Reduce employee risk around permit spaces with signs or training.
c) Training will be provided and documented for confined space work.
d) Prevent unauthorized employee entry in permit spaces.
e) Document procedures establishing a non-permit space.
f) Re-evaluate spaces when conditions change.
g) Make special arrangements with contractors who may enter permit spaces.
h) Supply safety and personal protective equipment.
i) A safety monitor shall not monitor more than one confined space unless the conditions safely allow this as determined by the competent person.
j) A reliable means of contacting rescue personnel must be employed.
k) Prior to entering the confined space, the competent person shall determine who to contact for rescue and how to best contact them.
l) The rescue personnel must be on site for any confined spaces which are Immediately Dangerous to Life and Health (IDLH.)
m) In the event multiple employers are working within the confined space, coordination shall be necessary with all employees to maintain a safe work site.

Work being done can cause conditions in a confined space to become more hazardous.

a) Hot Work uses up oxygen and can release hazardous materials. Any hot work in a permit space requires special authorization and a Hot work Permit.
b) Sanding, scraping and loosening residue can stir up hazardous materials.
c) Workers sometimes bring hazardous materials, such as solvents, into the permit space.
d) Work outside a permit space can produce harmful vapors that collect inside.

## THE CONFINED SPACE ENTRY PERMIT:

The confined space entry permit tells what hazards are in the permit space and how to control them. It usually includes a checklist of necessary safety measures.

Before anyone enters the permit space, the entry supervisor goes through the permit to make sure all necessary hazard controls are in place and signs the permit. Re-evaluation of conditions by the entry supervisor is required at intervals and when a replacement entry supervisor takes over.

The confined space permit usually varies in size, length and number of conditions covered; complete information is very important. Permits should include the following:

a) Specific permit space identification.
b) Purpose and date of entry.
c) Duration of authorization.
d) Authorized entrants by name.
e) Names of authorized attendant and entry supervisor.
f) Actual hazards of the identified space.
g) Control and isolation methods to be used.
h) Acceptable entry conditions.
i) Results of initial and periodic atmospheric testing.
j) Rescue and emergency services to be summoned.

k) Communication procedures authorized between attendant and entrants.
l) Equipment to be provided.
m) Other information as necessary.
n) Other permits, such as hot-work.

## NATURE OF HAZARDS IN CONFINED SPACE:

This section lists the atmospheric hazards known to be present or potentially present. It includes atmospheric monitoring requirements and lists hazards to be controlled or eliminated to provide acceptable entry conditions.

## PREPARATION OF THE PERMIT SPACE:

The following are the steps required to prepare the space before anyone enters it. The entry supervisor checks to see that each required precaution has been taken.

a) All departments likely to be affected by service interruption must be notified.
b) Post signs and put up barriers to protect entrants from vehicle traffic and pedestrians from falling into the space.
c) Disconnect and cap all input lines, so that no hazardous materials can enter the space.
d) Make sure no hazardous energy can be released. Follow the lockout/tagout rules.
e) Empty the space of any materials that may be hazardous. If necessary, clean, purge or inert hazardous residue in the space.
f) When ventilation is needed, begin long enough in advance so that the air will be safe before anyone enters. Verify breathing safety by air testing.
g) Assignment and training of entry supervisor or safety director, attendant and entrants is required to comply with the employer's Permit Space Entry Program and Emergency Response Plan.
h) Attach completed Hot work Permit, if required, to Confined Space Entry Permit.
i) Add emergency contact telephone numbers.

## ATMOSPHERIC TESTING

Test the air in all areas and levels of the space before entry with an oxygen monitor. Retest periodically for as long as the space is occupied and as is appropriate for the hazard involved.

For most items, allowable limits should be given on the permit. After tests are conducted, results are entered on the permit.

a) First, test to make sure the oxygen content is between 19.5 and 23.5 percent.
b) Test the concentration of flammable gases, which must be less than 10 percent of the lower flammable limit (LFL).
c) Airborne combustible dust cannot meet or exceed its LFL.

NOTE: If the space must be entered to determine air quality, the tester is required to wear respiratory protection.

a) Toxicity:

1. List any toxic material that could be present and their permissible exposure limits (PEL).
2. Test to make sure none of these materials has a concentration greater than its PEL.

b) If the air is unsafe according to any of these tests, the hazard must be controlled before entry is allowed.
c) If the air becomes hazardous later on the permit must be canceled, and everyone must leave the space.
d) Evaluate for heat stress potential.
    1. When testing is required, enter the degree reading according to the Wet Bulb Globe Thermometer. Note F for Fahrenheit or C for Centigrade.
e) The person performing the atmospheric test signs or initials the permit after each test result.

## EQUIPMENT REQUIRED FOR ENTRY AND WORK:

Appropriate personal protective equipment, such as hard hats, face shields and encapsulated suits must be made available at the site and listed.

Decide whether respirators and portable air monitors are required, and which types match the hazard.

If continuous communication between the attendant and entrant will be difficult or impossible, choose and list devices, such as radio or video equipment. Test this equipment before entry. List any special procedures necessary, such as hand signals.

a) List any special light sources, spark-proof tools and other electrical equipment that must be on hand before entry begins.
b) Make sure the equipment is safe and in good condition.
c) List any measures needed to guard against shock, such as ground-fault circuit interrupters (GFCI).
d) List devices such as ladders, boatswain's chairs and work platforms. Test this equipment before entry begins.

## EMERGENCY AND RESCUE PROCEDURES:

The safest ways of leaving a space when conditions deteriorate are:

a) Self-rescue, when an entrant evacuates the space with no help, at the first sign of trouble.
b) Non-entry rescue.
c) Only workers trained in rescue can enter the space for the purpose of rescue.

List necessary equipment or devices such as rescue equipment, whistles, phones and radios. Rescue equipment which may be required should be on the job site. Make sure it is in working order before entry begins.

Positive-pressure, self-contained breathing apparatus must be available on the site for rescuers if a respiratory hazard is potentially present.

It is a safe practice to wear an emergency escape breathing system, sometimes called an egress bottle, into a permit space whenever supplied air is required for entry. Should the supplied air fail, your emergency breathing apparatus must provide enough air to allow you to escape to breathable air.

**TRAINING AND DUTIES OF THE CONFINED SPACE ENTRY TEAM:**

## ENTRY SUPERVISOR:

The entry supervisor makes sure conditions are safe:

a) Before entry, the supervisor verifies that the permit is filled out completely and all safety steps listed on it are taken, then signs the form.
b) During entry, the entry supervisor checks conditions to make sure they stay safe throughout the work, if conditions become unsafe, the permit is canceled, and everyone is ordered out of the space. The entry supervisor sees that any unauthorized people are removed. When the work is finished, he/she cancels the permit and concludes the operation.

## ATTENDANT:

The attendant stays at his/her post to observe conditions and support the entrant and have the following responsibilities:

a) He/she must know the hazards of the permit space and the signs of exposure.
b) Keep a current count and be able to identify all entrants.
c) Stay in continuous contact with the entrants.
d) Be sure only authorized people enter the space or the area surrounding the space.
e) Order all workers out of the space in any of these situations:
    1. You see a condition not allowed by the entry permit.
    2. You notice signs of exposure in any entrant.
    3. you see something outside the permit space that could cause danger inside.
    4. You must focus your attention of the rescue of entrants from another permit space.
f) An attendant must never leave the observation post for any reason
g) If the entrants need to escape, call the rescue team at once.
h) In case of emergency, do not enter the permit space unless you are trained in confined space rescue, have proper emergency equipment and another attendant is there to replace you.

## ENTRANT:

The entrant must do his/her part to control the hazards of confined space entry.

# Confined Space Entry

As an entrant, be sure you know the hazards of the space and the signs of exposure. For example, lack of oxygen can cause:

a) Loss of muscle control.
b) Mental confusion.
c) Breathing difficulty.
d) Misguided feeling of well-being.
e) Ringing in the ears.
f) Death.

Follow your personal protective equipment training carefully, keep in contact with the attendant, and leave the space at once if you are ordered to evacuate. Always be ready to evacuate quickly and, if possible, without help; if you see that you are in danger, leave the space and tell the attendant.

Safe confined space entry takes teamwork between the entrant, the attendant and the entry supervisor. Everyone must do their part, so that any worker who goes into a permit-required confined space will come out of it in good health.

# EMERGENCY ACTION PLAN

Crisis management is the process by which an organization deals with a disruptive and unexpected event that threatens to harm the organization, its stakeholders, or the general public. When emergencies occur, they stress those involved, making it difficult to think clearly and make good decisions. Crisis Management planning is a tool used to minimize the potential damaging aftereffects of an emergency crisis event. It helps those on the site have a plan of what to do, who to call, and how to handle the event in such a way as to minimize damage to people, property, and reputations.

Emergency Action Plans should be developed at the start of each job in order to effectively deal with potential emergencies. By taking a proactive approach you will be able to handle the situation more effectively if it occurs, or this planning may allow you to avoid the crisis altogether. Periodically review and update the emergency action plan as conditions change. The following are items to consider while developing an Emergency Action Plan.

1. Each Ziolkowski Construction project should have an Emergency Action Plan on site.
2. Train employees on their duties in the event of an emergency and refresh that training annually.
3. Provide awareness training to first responders at the operations level.
4. Medical surveillance will be provided to responders potentially exposed to hazardous substances.
5. Consider "what if" scenarios on the job site. What if a fire occurs? What if a building/trench collapse occurs? What if a fall occurs? What if a workplace violence event occurs? What if a gas line is broken? What if contact is made with an energized line? Consider potential emergencies and develop a plan to deal with them.
6. Post contact numbers for the site: Site address, Emergency response number (911 or the internal site number), Safety Director's number, Supervisor's number, Site Controller's number (Owner, Construction Manager, etc.)
7. Emergency responders. How are they contacted? Do you use 911 or another site number? Is cell phone coverage limited there? What is the site address? How do the responders get into the site? Who meets them at the gate or nearest crossroads? How are they directed to the proper area? What floor is the emergency on?
    a. Call and get trained personnel there to help you.
    b. Assign someone to meet the responders and tell that person where to direct the responders to.
    c. Do you have first aid supplies? Who on site is prepared to render first aid? Does everyone know where the supplies are and who is trained? Are your first aid responders protected?

8. Is the area Secure? You are in charge of securing the site and preventing additional injury/damage to workers, the public, or property. People are curious; they want to see what's going on. People want to help. Limit the area to only those necessary to handle the situation. If the area is too dangerous, keep everyone out. How would you do that?
    a. Assign someone, or multiple people, to keep unnecessary people out.
    b. How do you notify all personnel on site in the event of an evacuation or that part of the site is restricted? Have a means in place for site communication. Radios, cell phones, air horns, etc. Assign a person to be in charge of the notification/evacuation.
9. Contact the company Safety Director. Be prepared to tell him what happened, who's involved, and what you have done so far.
10. Contact your direct supervisor. Be prepared to tell him what happened, who's involved, and what you have done so far.
11. Contact the site controlling authority and inform them of the emergency. This may be the owner, the Construction Manager or other entity that is in charge of the site.
12. Contain all site personnel in a safe area. Get a headcount and make certain all are accounted for. Tell them that no one is to leave the site, and no one is to talk to anyone about the situation. Rumors have a way of growing during or following a crisis and this needs to be prevented.
    a. If workers are unaccounted for, inform the emergency responders in the event they may be trapped, hurt, etc.
13. If you have subcontractors, contact their site foremen and have them gather their employees, take headcounts, and have them stay on site as well.
14. Establish a perimeter and keep the public out. Be polite, but firm, if the public tries to get involved or in the way. You might use, "For your safety, you need to stay on the other side of that sidewalk. "Or something similar. If they ask what is going on, politely tell them you are handling the situation and do not have time to discuss it.
15. Dealing with the media. If the media arrives, meet them and ask them to stay in a safe area. Be calm, be professional. Tell them the site is being secured and their safety depends on them staying in their assigned area and then take them to that area. Do not station them in the same area as the works. Tell them someone will return with information as soon as it allows. Do not engage their questions or tell them what happened. The Safety Director or someone assigned by him will talk to them as soon as feasible.

    The better prepared you are to deal with an emergency, the easier it will be. You'll have less stress, a better response, and all involved will benefit from your planning and preparation.

# CRISIS MANAGEMENT PROGRAM

The following is an outline to format a job specific emergency crisis management plan; which may be implemented on jobsites at startup and should be updated and reviewed as jobs progress.

This crisis management plan is to serve as a guide to handle emergency situations that may occur. Unfortunately, due to the nature of the construction business, emergencies are going to happen; pre-planning a jobsite emergency action plan can prevent detrimental effects to the jobsite, and the company's reputation. The purpose is to maintain the company's credibility and positive image with all of its identified audiences in the face of adversity. Without pre-planning a potential emergency, thinking will not be clear, actions late, and the outcome will be out of control. The following steps should be taken to establish each job site-specific program when necessary.

## ORGANIZE A TEAM:

A crisis management team has been established for Ziolkowski Construction, Inc. This team is as follows:

- Safety Director (leader)
- Yard Manager
- General Division Manager
- Masonry Division Manager
- Painting Division Manager

This team will be trained to evaluate and assess situations from all angles and can prepare contingency plans for all the "other" crises that could happen as a result of the first one.

The Safety Director is the leader of the team. In a crisis he will assign specific areas of responsibilities to the rest of the team members and involved parties.

## PREPARING EACH PLAN:

A key factor in combating the frantic state of a crisis is to have a pre-established list of contacts that could affect us getting work. The job specific plan needs a reference document of subcontractors, and suppliers for each individual job. A list of contacts will be kept in the office with all other key contacts: **banks, spouses, families, media lists, engineers, suppliers, owners, employees, architects, subcontractors, political leaders, community leaders, bonding companies, and past/present clients.* In addition, a list of tips for the spokesperson: safety history, company fact sheets, and the company's recognition/achievements will be kept current to help prepare the spokesperson for his presentation.

## THE SPOKESPERSON:

The spokesperson is one of the most crucial members of the crisis team. Ziolkowski Construction, Inc.'s spokesperson will be the Safety Director. The Safety Director will provide most of the information about any crisis to reporters, customers, employees and others. The Safety Director will receive training in the do's and don'ts of dealing with the media. In a crisis, it is essential that the Safety Director be supplied with sufficient facts to speak to the media; his goal will be to defend the company's integrity. It will be the Safety Director's responsibility to contact all audiences listed above.

## FIELD SUPERVISORS:

If a job-site accident occurs, the project superintendent has total control at the site. After relaying the information, the project superintendent should close off the job site (depending on the severity of the situation) and post someone at the gate to allow only authorized personnel in and out. The superintendent must serve as a temporary spokesperson until the crisis team spokesperson arrives.

## PERFORM SYSTEMATIC CRISIS PLANNING:

The Crisis Management Team will meet periodically, to conduct a crisis audit to determine what particular crises are apt to hit the company. The team will brainstorm how each emergency situation could go from bad to worse: This is the "What-if" technique. All possible repercussions resulting from a crisis will be assessed. The final product of this analysis is the specific "who does what" procedures assigned to each member of the crisis team. Take the following examples:

* *We've determined that we have severed a power line. What if an area blackout exists? What if an area hospital is on stand-by power? Or a television station is on stand-by power, or the job-site telephone is inoperable? What if an explosion occurred and the job site is declared a danger area because of live wires? What if political officials call with questions? What if the company is deluged with calls from the media? What if the building owner or developer calls with questions? What if the media shows up at the job site, demanding answers to questions, and perhaps prints stories that are critical of our safety procedures? What if private property has been damaged and exaggerated damage claims are filed? Perhaps community groups complain to the media. What if workers are injured? What if there are injuries to the public? What if friends and relatives of the injured make statements critical of our company? What if lawsuits are filed claiming negligence? What if traffic is blocked, and special equipment is required to move the debris? Or additional personnel are needed to reroute traffic?*

As you can see, the "what if" possibilities can have more of a detrimental effect on the company than the initial crisis may have caused.

## KEEP MATERIAL CURRENT:

The team will organize and research information for this plan. However, if the information is not current, it can become a source of frustration and embarrassment. The list of contacts will be updated periodically, and the specific job site plans will be reviewed at the jobs, safety inspection. Make sure that the plan is accessible--don't let them get lost or hidden. Be sure that updated versions of the plan are distributed as well.

## PRACTICE YOUR PROGRAM:

Only through a practice exercise will it be evident if the program works. A test will also determine what areas need further work. Each large jobsite will be tested with the crisis management team, and a general test will be conducted for the smaller projects.

## USE THE PUBLIC RELATIONS PROGRAM:

The key to this crisis management plan is to maintain the company's positive endeavors, reputation, and image, and keep these factors in front of the public. If the emergency is getting a lot of negative press, the spokesperson will need to get to the list of contacts as quickly as possible to tell them our side of the story.

The buyers of construction services are buying a promise. They know that in most cases what they are buying will not come to fruition for months, or even years. The company's reputation is its most valuable asset and once damaged, can take years to rebuild. Sometimes it will never return to its original position and, in some situations, this can prove to be fatal.

A crisis situation has a definite impact upon the company's overall financial picture, employee productivity, and reputation. A crisis makes heavy demands on time—that of management and of key personnel involved in bringing the situation under control. Without a plan, the crisis will control you rather than you control the crisis.

## CHAIN OF EVENTS:

The following is a chain of events procedure that will outline the steps of action in case of an emergency situation and address the dos and don'ts in a crisis.

## FIRST STEPS:

1) After an emergency, gather as many facts as possible about the crisis in the least amount of time possible. Call the office and explain the situation to the Crisis Management team leaders.
2) The team leaders will conduct an emergency meeting with the rest of the Crisis Management Team. The team will put together a scenario and establish the course of action to be taken.
    a. Meanwhile, the superintendent of the project will be the temporary spokesperson, closing off the area to the public, only allowing authorized personnel in and out.
3) The Crisis Management Team will then contact all responsible parties that could affect us getting work, so we can explain our side of the story before they hear it from someone else.
4) The team leader and spokesperson will get to the site to talk to the media, the superintendent, all employees, and concerned parties with a statement.

## TALKING TO THE MEDIA:

1) The goal of the superintendent as the temporary spokesperson is to buy time. (Example: "My name is Joe Smith and I am the superintendent on this project. An accident has just occurred, and I don't have any facts to give you at this time. Please give me 45 minutes to collect whatever information I can. Until that time, please stay within this safety area. Thank you." This statement does three things:
    a. It gives us 45 minutes to get our act together.
    b. It shows the media that you are proactive rather than reactive.
    c. It shows that you will not speculate on the cause or current status and need time to gather facts.
2) If you say you will be back in 45 minutes, be there! Come back even if you have nothing to say. This is very important because we must portray ourselves as a believable company. Example: "Due to the rush of the emergency, and coordination of emergency services, I have been unable to obtain any verifiable information. I'm sorry that I don't have any information at this point, but anything I say would be speculation, which would be inappropriate. I will be back in 30 minutes (or whatever you deem necessary) to give you an update."

a) Now you have some information to deliver (which has been cleared for release by upper management.) To be safe, read from a prepared script. This will ensure that you won't get off track or ad lib. For your own protection, hand out a copy of your statement, as well as a fact sheet on your company and the project. This is very helpful to a reporter and reinforces your facts in a written format.

3) Circulate a copy of each media statement to your employees to keep them informed. Remember, the media can (and will) talk to them. Also, employees talk to people who can influence business your way, so it is important that everyone speaks with one voice.

4) At the conclusion of your statement, mention that you will have an update within a certain period of time. This lets the news media know that you will continue to communicate with them.

What to do after the initial crunch: You've gotten through the first few hours and feel pretty good about your proactive stance with the media. Don't let up now; it's a reporter's job to "comfort the afflicted and afflict the comfortable." Our goal is to be honest with the media and respond to their needs, while reinforcing the company's reputation and good points.

## TIPS ON DEALING WITH THE MEDIA:

1) **Do talk:** Saying a little is better than saying nothing. Explaining why you cannot talk is better than stonewalling. If you want your side of the story told, you must tell it. If you do not, reporters will get a version elsewhere—from the disgruntled employee that was laid off last week, or from a worker who just lost his/her best friend.
2) **Do Tell the Truth:** Reporters will find it out anyway, so be honest and accurate when giving information. This doesn't mean you have to give every detail but be truthful.
3) **Do Not Say Anything "OFF THE RECORD":** If you do not want it used, do not say it.
4) **Do Respond Quickly:** If you do not, the wrong story may be told, and that is tough to erase.
5) **Do Not Say "NO COMMENT":** This statement implies guilt. If you do not know the answer to a question, tell the reporter you do not know but will try to find out. If the question may lead to an embarrassing answer, give as much information as you can in as positive a light as possible. If you make a mistake, admit it. Avoid excuses. Explain how you are planning to make things right.
6) **Do Emphasize the Positive and Communicate Your Corporate Message*:*** Remember to emphasize the good safety measures taken, the minimal damage done because of good teamwork by your employees, and what the company is doing to minimize the effect of the emergency on the community.
7) **Do Stay Away from Liability Issues:** Do not talk about who is responsible; do not make any accusations; and do not give out company or individual names. Whatever you say may become part of a legal issue, so be as general as possible.
8) **Do Take Control:** If there is bad news, release it before a reporter digs it up and tells the world.

9) **Do Not Get Trapped into Predicting the Future:** If the situation is complex and will take days to determine the full extent of the damage, tell reporters that the company will resume full work on the project as soon as possible.
10) **Do Make Sure Your Information Is Accurate:** It should come from a reliable source and you should understand the details thoroughly.
11) **Do Make Sure the Reporters Know Who the Spokesperson Is:** The corporate spokesperson should be the only one authorized to disseminate information to the outside world. It is very important that you speak with "one voice." Keep in mind that no information should be released without being approved by upper management.
12) **Do Not Wear Sunglasses While Being Interviewed:** You will be perceived as being "shifty" and hiding something.

If we follow these guidelines, we will stand a better chance of getting fair coverage and protecting our reputation. If you elect to stonewall, or use "no comment," the result will likely be poor, inaccurate, or one-sided coverage. The penalty is severe because there is no practical recourse to "set the record straight."

The established Crisis Management Program will further explain the details of establishing your job specific program since each job will be different, and circumstances will vary. All information in this program needs to be periodically updated and practiced to-ensure the company's survival after the crisis.

# ADVERSE WEATHER

Adverse weather can endanger workers. Adverse weather may include temperature extremes, high winds, lightning, floods, ice, hail, and heavy snow. Each situation must be evaluated prior to starting work, or continuing work in the event conditions change during a shift. If the weather conditions are such that workers' lives are endangered, stop work immediately. Evacuate the work area, assemble in the designated area, and take a head count in order to account for everyone. Inform the project manager of the work stoppage when it is safe to do so.

# HOUSEKEEPING

Many accidents could be avoided through better housekeeping. A clean jobsite is safer and more productive than a dirty or unkempt job site. The benefits or a clean job site are a safer job site, a more productive job site, a job site that satisfies the site owners, and it presents an aura of quality and professionalism.

a) All debris shall be cleaned from the work area daily.
b) Plan for effectively collecting and removing project wastes, trash, and/or scrap materials. Consideration must be given to minimize potential impact to the environment.
c) Employees will be made aware of the proper method to dispose of wastes.
d) Where applicable segregate waste for efficient disposal and utilize waste recycling when available.
e) Stairs and walkways shall be kept clear of obstructions and tripping hazards at all times.
f) Tools shall be stored in toolboxes and if left aside must be placed in a manner that will not cause danger to others.
g) Storage of materials and supplies shall be in designated areas.
h) Chemicals shall be properly stored to minimize the potential for a spill.
i) Spill response materials or spill kits must be available for anticipated spills.
j) Train employees on proper spill prevention and response procedures.
k) Setup communication measures in the event a spill or release of materials occurs.
l) Utilize good housekeeping and best management practices to prevent spills.
m) Subcontractors shall be required to comply with ZCI's housekeeping program. All subcontractors that are not complying shall be warned, instructed on the site requirements, and given the opportunity to clean their work area. If a subcontractor continues to be noncompliant, Ziolkowski Construction, Inc will clean the area for the benefit of all site workers and the Project Manager will back charge the subcontractor for the work performed.
n) Housekeeping shall be addressed at all pre-construction meetings, site progress meetings, and whenever else appropriate.
o) Adequate dumpsters, trash carts, brooms, shovels, and other equipment shall be provided to promote a clean job site.

# THEFT REPORTING PROCEDURES

1) At all times have an accurate listing of company equipment on hand, including serial numbers and model numbers.

2) When a theft is discovered, contact the local police and file a report.

3) Make a complete listing of what equipment and materials are missing. If there is missing inventory, list the quantity, description, where the material was purchased, the approximate date it was purchased, and whether it was delivered to the jobsite, or picked up.

4) That list should be given to the police and a copy sent to the office to the attention of the company's Chief Financial Officer.

5) A copy of the police report should also be sent to the CFO.

6) Representatives of our insurance company may contact you for additional information.

7) At any time, if you have questions, please contact the CFO or Safety Director at the main office (574) 287-1811.

8) Make sure all employees know that their personal tools are not covered by the company's insurance and that they need to maintain their own insurance.

9) Notify the project manager for that job and review the situation with him or her.

# PERSONAL PROTECTIVE EQUIPMENT

Ziolkowski Construction, Inc strives to eliminate all hazards through engineering or administrative controls. When this cannot be accomplished, then personal protective equipment and suitable work clothing must be worn. All PPE must be used in a safe and proper manner and must be kept sanitary. Employees will be provided all necessary personal protective equipment for the work project. A hazard assessment shall be made, and signed by the person making the assessment, to ensure proper PPE is selected.

1) All projects are Hard Hat projects. All ZCI employees, regardless of craft, shall wear a Hard Hat, unless the Safety Director approves of a project not requiring the use of Hard Hats.

2) All ZCI employees shall comply with the project's PPE requirements. In other words, if the site requires 100% Hard Hat and Safety Glass use, then our employees shall comply.

2) Hard Hats, Safety Glasses, Face Shields, Goggles, Respirators, Harnesses, Lanyards, Hearing Protection, are some of the industry standard Personal Protective Equipment items. However, PPE shall not be limited to those items. Always use PPE suitable for the task at hand and only use PPE which is of the proper fit and/or size.

4) All PPE must be properly cared for, stored, cleaned, disinfected, and kept in serviceable condition. Employees are trained on the selection, use and care of PPE. Retraining may be required as necessary. This training should be documented.

5) Hard soled work boots shall be used on all projects. The use of street shoes or athletic shoes is not allowed.

5) Suitable work gloves shall be used whenever conditions warrant.

6) Sleeveless- shirts, cut off sleeves, and shorts are prohibited.

7) Defective PPE must be tagged, discarded or removed from service.

8) Employees exposed to noise of 85 dBA or greater shall be included in the hearing conservation program. These employees will be provided annual training.

9) Monitoring procedures will be used when exposure limits may exceed 85 dBA, 8-hour time-weighted average.

10) Audiometric testing is performed annually for individuals exposed to noise equal to or greater than 85 dBA, 8-hour time-weighted average.

11) A baseline audiogram must be established within the first 6 months of exposure.

12) At least 14 hours without exposure to workplace noise is required prior to establishing a baseline audiogram.

13) Employees will be notified in writing of a standard threshold shift within 21 days of determination and hearing protection will be re-evaluated in the event of a standard threshold shift.

14) Hearing protection is provided to employees exposed to an 8-hour time-weighted average of 85 dBA.

15) Hearing protection is evaluated for the specific noise environments in which the protection is used.

Records shall be maintained for employee's exposure if they are in the hearing conservation program.

# NOISE EXPOSURE / HEARING CONSERVATION

**Purpose**
The purpose of this program is to provide a process to minimize employee-hearing loss caused by excessive occupational exposure to noise.

**Scope**
This program is applicable to all employees who may be exposed to noise in excess of 85 decibels (decibels). When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers Ziolkowski Construction employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

**Definitions**
Audiometric testing - means detection by the person being tested of a series of pure tones. For each tone, the person indicates the lowest level of intensity that they can perceive.

Decibels – means the sound energy measured by a sound level meter using the "A" scale. The "A" scale is electronically weighted to simulate the response of the human ear to high and low frequency noise.

Slow Response – means the setting on the sound level meter that averages out impulses of brief duration that would cause wide fluctuation in the sound level meter reading.
Standard Threshold Shift – means a change in hearing threshold relative to the baseline audiogram of an average of 10 dB (corrected for age) at 2000, 3000 and 4000 Hz in either ear.
Key Responsibilities

**Managers and Supervisors**
Ensure requirements of this program are established and maintained.
Ensure employees are trained and comply with the requirements of this program.

**Employees**
Wear hearing protection when required, attend the training, and cooperate with testing and sampling.

**Procedure**
Occupational hearing loss is a cumulative result of repeated or continued absorption of sound energy by the ear; employee protection is based on reduction of the noise level at the ear or limiting the employee's exposure time. Ziolkowski Construction shall offer hearing protection to all employees exposed to potential high noise levels in working areas and to those employees requesting hearing protection.

**Hearing Conservation Program**
Ziolkowski Construction shall implement a hearing conservation program for employees exposed to sound levels 85dbA or greater. A continuing effective hearing conservation program shall be

administered when employees are exposed to sound levels greater than 85 dbA on an 8-hour time-weighted average basis.

Employees will wear hearing protection in signed areas while on an owner client facility.

**Monitoring Procedures to be Used When Exposure Limits Exceed the Established Level**
When information indicates that employee exposure may equal/exceed the 8-hour time-weighted average of 85 decibels, a monitoring program shall be implemented to identify employees to be included in the hearing conservation program.

**Surveys**
Surveys will be conducted by a qualified employee or third party.

To evaluate noise exposure in terms of possible hearing damage, it is necessary to know the overall sound level ("A" scale measurement), the exposure time of the individual in hours per day and the length of time the individual has worked in the area being surveyed. This data shall be supplemented by the following:

- Name of area and location
- Date and time of survey
- Name of person conducting survey
- Description of instrument used, model and serial number
- Environmental conditions
- Description of people exposed

Ziolkowski Construction shall notify each employee of their monitoring results, or, if their job is exposed to noise 85 decibels or greater.

A plot of noise levels must be made for owned facilities. The plot must be filed or posted at the facility.

Ziolkowski Construction shall evaluate hearing protector attenuation for the specific noise environments in which the protector will be used. The adequacy of hearing PPE shall be reevaluated whenever noise exposures increase to the point that the PPE provided may no longer provide adequate protection. Ziolkowski Construction shall then provide more effective PPE where necessary.

All sound measuring equipment must be calibrated before and after each survey. Records of sound measuring equipment calibration and noise level surveys shall be kept for 20 years.

Noise Surveys must be repeated whenever changes in the workplace may expose additional personnel to high noise or hearing protection being used by employees may not be adequate to reduce the noise exposure to a level below 85 decibels.

*Sound Level Surveys:*

- All owned facilities that are suspected of having noise levels exceeding 85 decibels must be screened.

*Exposure Surveys:*

- A representative sampling of employees shall be conducted to determine the exposure to noise over a period of time.
- Noise dosimeters must be capable of integrating all continuous, intermittent, and impulsive sound levels from 80 dB to 130 dB and must be calibrated so a dose of 50% corresponds to a time weighted average of 85 dB.

**Signage**

Clearly worded signs shall be posted at entrances to, or on the periphery of, areas where employees may be exposed to noise levels in excess of 85 decibels. These signs shall describe the hazards involved and the required protective actions.

**Audiometric Testing**

Ziolkowski Construction must establish and maintain an audiometric testing program for all employees whose exposures equal or exceed the 8 hour time-weighted average of 85 dbA and making audiometric testing available to all employees whose exposures equal or exceed an 8 hour time-weighted average of 85 decibels.

Baseline Testing Guidelines

- Ziolkowski Construction shall establish a baseline audiogram for each exposed employee within 6 months of their first exposure. Within 6 months of an employee's first exposure at or above the action level, a valid baseline audiogram shall be established against which future audiograms can be compared.
- When a mobile van is used the baseline shall be established within one year.
- A qualified third party shall perform all audiometric testing, evaluation, reporting and retesting.
- Prior to establishment of a baseline audiogram at least 14 hours without exposure to workplace noise is observed. Testing to establish a baseline audiogram shall be preceded by at least 14 hours without exposure to workplace noise. Hearing protection may be used to meet the requirement. Employees shall also be notified to avoid high levels of noise.

Annual Testing Guidelines

Ziolkowski Construction shall provide an annual audiogram and if a standard threshold shift has occurred the employee will be notified in writing within 21 days of determination. At least annually after obtaining the baseline audiogram, Ziolkowski Construction shall obtain a new audiogram for each employee exposed at or above an 8-hour time-weighted average of 85 decibels. Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, the employee shall be informed of this fact in writing, within 21 days of the determination.

Steps That Are Taken When Standard Threshold Shift Occurs

- Hearing protection shall be re-evaluated and/or refitted and,

- If necessary, a medical evaluation may be required and
- The employee shall be advised to wear hearing protection and if necessary, a reassignment of duties may be deemed appropriate.

**Required Recordkeeping**
Ziolkowski Construction shall maintain accurate records of all employee exposure measurements and all records are maintained as required by CFR 1910.95 (Occupational Noise Exposure).

Employee audiograms are considered medical/exposure records. These records must be kept for the length of employment plus 30 years.

**Hearing Protection Devices**

- Hearing protectors are available to all employees exposed to an 8-hour time-weighted average of 85 decibels at no cost to the employee.
- Hearing protection shall be replaced as necessary.
- Ziolkowski Construction shall ensure that hearing protectors are worn. Employees shall be properly trained in the use, care and fitting of protectors. This is done at no cost to employees.
- Employees shall be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided by Ziolkowski Construction.

## TRAINING

Employees must be provided with training on at least an annual basis and shall be updated to be consistent with changes in the PPE and work processes.

A training program shall be provided for all employees who are exposed to action level noise.

The training shall be repeated annually for each employee. Training shall be updated consistent to changes in PPE and work processes. Ziolkowski Construction shall make available to affected employees copies of the noise exposure procedures and shall also post a copy in the workplace. Ziolkowski Construction shall also allow the Assistant Secretary and the Director access to records.

All training must and shall be documented.

All staff shall have a copy of this program, noise exposure procedures and it shall be posted at the worksite and a copy made available to all employees and their representatives if applicable.

# Silica Dust Control Policy

This program was developed to help minimize, if not eliminate employee exposure to respirable silica. Our competent person for this program is the Safety Director. This program should be reviewed and evaluated annually to determine its effectiveness. This review will determine if there are any additional silica producing tasks we perform that were not previously identified. This review will also determine if existing controls and equipment use are being followed per this program and manufacture specifications.

**Tasks/Controls for Potential Silica Exposure**

Our evaluation of potential exposures has identified that we will be able to adhere to the Specified Exposure Control Methods listed in Table 1 of OSHA 1926.1153 Respirable Crystalline Silica. Individual projects should be evaluated to determine if potential exposure exists, and if so, a plan should be drafted to eliminate or limit exposure to levels not considered hazardous.

Safety of Others: When necessary to restrict work area, cordon off area using danger tape or other appropriate visible materials. Signage may be used to notify others of potential silica hazard.

Worker Training: OSHA's respirable crystalline silica standard for the construction industry - 29 CFR 1926.1153 - paragraph (i)(2) Employee information and training (i) states: "The employer shall ensure that each employee covered by this section can demonstrate knowledge and understanding of at least the following: (A) The health hazards associated with exposure to respirable crystalline silica; (B) Specific tasks in the workplace that could result in exposure to respirable crystalline silica; (C) Specific measures the employer has implemented to protect employees from exposure to respirable crystalline silica, including engineering controls, work practices, and respirators to be used; (D) The content of this section; Your Silica Control Plan (E) The identity of the competent person designated by the employer in accordance with paragraph (g)(4) of this section; and (F) The purpose and a description of the medical surveillance program required by paragraph (h) of this section. (ii) The employer shall make a copy of this section readily available without cost to each employee covered by this section.

Other training to consider:

Personal hygiene: the need to avoid shaking off dust that has accumulated on clothing and hair, to wash up at the end of a shift, avoid smoking, and to avoid eating and drinking in areas where silica dust is present How to identify when a control is not working The importance of using all controls and personal protective equipment provided by the employer.

Housekeeping: Good housekeeping is an important part of a silica exposure control plan. OSHA's Respirable crystalline silica standard for the construction industry - 29 CFR 1926.1153 - paragraph (f) states: "(1) The employer shall not allow dry sweeping or dry brushing where such

activity could contribute to employee exposure to respirable crystalline silica unless wet sweeping, HEPA-filtered vacuuming or other methods that minimize the likelihood of exposure are not feasible. (2) The employer shall not allow compressed air to be used to clean clothing or surfaces where such activity could contribute to employee exposure to respirable crystalline silica unless: (i) The compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air; or (ii) No alternative method is feasible." There are several steps that can be taken to ensure dust on surfaces or collected in vacuums does not become airborne: Do: Use wet methods, such as a water spray on the dust source, wet mopping or wiping, (non-silica containing) sweeping compounds, or vacuums with HEPA filters to remove dust from floors and surfaces Keep bags and other containers of silica-containing waste tightly closed to prevent the dust from escaping and becoming airborne Provide employees with a place to wash up close to the worksite (as required by OSHA 29 CFR 1926.51(f)(l)) Provide employees with access to vacuums with HEPA filters so that they can safely remove dust from their work clothes before going home. Don't: Dry sweep or dry dust to clean up Use compressed air to blow the dust away from surfaces or remove dust from clothing Empty bags or containers of silica-containing waste into other containers – once a container with silica-waste is closed – keep it closed.

Medical Surveillance: OSHA's Respirable crystalline silica standard for the construction industry - 29 CFR 1926.1153 - paragraph (h) Medical surveillance states: (1) General. (i) The employer shall make medical surveillance available at no cost to the employee, and at a reasonable time and place, for each employee who will be required under this section to use a respirator for 30 or more days per year. (ii) The employer shall ensure that all medical examinations and procedures required by this section are performed by a PLHCP as defined in paragraph (b) of this section. (2) Initial examination. The employer shall make available an initial (baseline) medical examination within 30 days after initial assignment, unless the employee has received a medical examination that meets the requirements of this section within the last three years. The examination shall consist of: (i) A medical and work history, with emphasis on: past, present, and anticipated exposure to respirable crystalline silica, dust, and other agents affecting the respiratory system; any history of respiratory system dysfunction, including signs and symptoms of respiratory disease (e.g., shortness of breath, cough, wheezing); history of tuberculosis; and smoking status and history; (ii) A physical examination with special emphasis on the respiratory system; (iii) A chest X-ray (a single posteroanterior radiographic projection or radiograph of the chest at full inspiration recorded on either film (no less than 14 x 17 inches and no more than 16 x 17 inches) or digital radiography systems), interpreted and classified according to the International Labor Office (ILO) International Classification of Radiographs of Pneumoconiosis by a NIOSH-certified B Reader; (iv) A pulmonary function test to include forced vital capacity (FVC) and forced expiratory volume in one second (FEV1) and FEV1/FVC ratio, administered by a spirometry technician with a current certificate from a NIOSH-approved spirometry course; (v) Testing for latent tuberculosis infection; and (vi) Any other tests deemed appropriate by the PLHCP. (3) Periodic examinations. The employer shall make available medical examinations that include the procedures described in paragraph (h)(2) of this section (except paragraph (h)(2)(v)) at least every three years, or more frequently if recommended by the PLHCP. (4) Information provided to the PLHCP. The employer shall ensure that the examining PLHCP has a

copy of this standard, and shall provide the PLHCP with the following information: (i) A description of the employee's former, current, and anticipated duties as they relate to the employee's occupational exposure to respirable crystalline silica; (ii) The employee's former, current, and anticipated levels of occupational exposure to respirable crystalline silica; (iii) A description of any personal protective equipment used or to be used by the employee, including when and for how long the employee has used or will use that equipment; and (iv) Information from records of employment-related medical examinations previously provided to the employee and currently within the control of the employer. (5) PLHCP's written medical report for the employee. The employer shall ensure that the PLHCP explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of each medical examination performed. The written report shall contain: (i) A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to respirable crystalline silica and any medical conditions that require further evaluation or treatment; (ii) Any recommended limitations on the employee's use of respirators; (iii) Any recommended limitations on the employee's exposure to respirable crystalline silica; and (iv) A statement that the employee should be examined by a specialist (pursuant to paragraph (h)(7) of this section) if the chest X-ray provided in accordance with this section is classified as 1/0 or higher by the B Reader, or if referral to a specialist is otherwise deemed appropriate by the PLHCP. (6) PLHCP's written medical opinion for the employer. (i) The employer shall obtain a written medical opinion from the PLHCP within 30 days of the medical examination. The written opinion shall contain only the following: (A) The date of the examination; (B) A statement that the examination has met the requirements of this section; and (C) Any recommended limitations on the employee's use of respirators. (ii) If the employee provides written authorization, the written opinion shall also contain either or both of the following:(A) Any recommended limitations on the employee's exposure to respirable crystalline silica; (B) A statement that the employee should be examined by a specialist (pursuant to paragraph (h)(7) of this section) if the chest X-ray provided in accordance with this section is classified as 1/0 or higher by the B Reader, or if referral to a specialist is otherwise deemed appropriate by the PLHCP. (iii) The employer shall ensure that each employee receives a copy of the written medical opinion described in paragraph (h)(6)(i) and (ii) of this section within 30 days of each medical examination performed. (7) Additional examinations. (i) If the PLHCP's written medical opinion indicates that an employee should be examined by a specialist, the employer shall make available a medical examination by a specialist within 30 days after receiving the PLHCP's written opinion. (ii) The employer shall ensure that the examining specialist is provided with all of the information that the employer is obligated to provide to the PLHCP in accordance with paragraph (h)(4) of this section. (iii) The employer shall ensure that the specialist explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of the examination. The written report shall meet the requirements of paragraph (h)(5) (except paragraph (h)(5)(iv)) of this section. (iv) The employer shall obtain a written opinion from the specialist within 30 days of the medical examination. The written opinion shall meet the requirements of paragraph (h)(6) (except paragraph (h)(6)(i)(B) and (ii)(B)) of this section.

Other Considerations: Other Considerations Depending on the material, task, control selected, working conditions, weather, and location of the job there are other things you may need to address when putting together your silica exposure control plan.

The following are examples:

Using Water as a Control: Collect the water -- tools with water collection systems can help avoid creating wet, slippery ground and walking surfaces. During cold weather a layer of ice can form on wet surfaces and increase the risk of slips and falls. Depending on the system, wet cutting can result in run-off that may need to be controlled. Remove silica-containing debris while wet to prevent the dust from becoming airborne and hazardous once dry. Avoid electric shocks when using an electric-powered tool with a water control by making sure that the electrical cords and extensions are rated for the tool's power requirements, regularly inspected, and used in combination with ground fault interrupt circuits. Factor in the impact of wet cutting on materials being used -- the time that may be required to allow masonry materials to dry after cutting and before use will depend on the material, the amount of water used, and the application. Concern that excess shrinkage as the units dry might lead to cracks has led some to prohibit wet cutting. The amount of water added to the unit during site cutting is insignificant, in terms of shrinkage. This was clarified in the ACI 530.01-05/ASCE6-05/TMS 602-05 Specification for Masonry Structures.

Using Vacuum Controls: Vacuum controls must be located as close to the dust generation as possible to be effective. A shroud may be needed to contain the dust so the vacuum can capture it. The shroud must be kept as close to the work surface as is practical to provide adequate dust capture. The shroud should be connected to the vacuum with 2-inch, or greater, diameter tubing with a relatively smooth interior. For dust containing silica, it is important to use as high efficiency filters as practical. The best available are called HEPA (High Efficiency Particle Air) filters because they capture 99.97% of the most penetrating particles. But HEPA filters also create a greater pressure drop and decrease in air flow rate because it is more difficult to pull air through these denser filters so capture velocity may be reduced. HEPAs require routine cleaning or disposal of prefilters, which can cause exposures to those performing the filter maintenance. For operations that generate large amounts of dust, cyclonic collection units may be a good option. These units spin the particles and drop them into cheap bags that do not need to be replaced as frequently as other types of vacuum bags because the vacuum pressure does not drop as the bags fill up. Vacuum performance must be monitored on a regular basis to ensure the control’s effectiveness. A vacuum with a pressure gauge allows for frequent and easy monitoring of air flow. Vacuums require an adequate power source -- large electric vacuums commonly require 20 amp electrical circuits in addition to the power required for the tool.

Other issues: Avoid using gasoline-powered equipment in areas without adequate ventilation or confined spaces to prevent carbon monoxide poisoning. When using gas-powered equipment, small, inexpensive personal monitors can be worn by the operator to warn of unacceptable exposures. Monitor noise levels and ensure workers use hearing protection. Equipment-control combinations may generate sound levels that are greater than 90 decibels, the OSHA Permissible

Exposure Limit (PEL). The NIOSH "Buy-Quiet" website provides helpful information on available tools and noise levels.

# RESPIRATORY PROTECTION PROGRAM

The Respiratory Protection Program is put in place to protect workers from respiratory hazards. The program follows and complies with the OSHA 29 CFR 1910.134. Ziolkowski Construction, Inc.'s policy is that respirators are to be used only after the company has evaluated the work process, the exposure, and alternative control measures such as dilute or exhaust ventilation, wet methods, airless spray, and substitute products. If engineering controls do not eliminate the exposure, then respiratory protection can be used for employee protection under the direction of the company's designated program administrator.

The company provides respiratory equipment to employees as needed for the work environment. The employee must maintain the respiratory properly, including cleaning and storage. The employee will be trained on the proper use of the respirator

Employees potentially exposed to airborne contaminants must wear respiratory protection. The respiratory protective equipment must be selected based on the specific respiratory hazards. Prior to using a respirator, the employee must pass a medical evaluation and fit test.

The employee must always make certain they maintain an effective facial seal of respiratory protective equipment and shall leave the area if a vapor/gas breakthrough, changes in breathing resistance, and/or leakage of the facepiece occurs.

The employee shall inspect the respirator prior to use to insure it is in good working condition. The respirator shall be cleaned after use and stored appropriately.

The company does not work in conditions immediately dangerous to life or health (IDLH).

A copy of relevant parts of OSHA 1910.134 is provided for review.

Respiratory Protection. - 1910.134

Permissible practice.
1910.134(a)(1) In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this section.

1910.134(a)(2) A respirator shall be provided to each employee when such equipment is necessary to protect the health of such employee. The employer shall provide the respirators which are applicable and suitable for the purpose intended. The employer shall be responsible for the establishment and maintenance of a respiratory protection program, which shall include the requirements outlined in paragraph (c) of this section. The program shall cover each employee

required by this section to use a respirator.

1910.134(b) Definitions. The following definitions are important terms used in the respiratory protection standard in this section.

Air-purifying respirator means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Assigned protection factor (APF) means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified by this section.

Atmosphere-supplying respirator means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.
Canister or cartridge means a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

Demand respirator means an atmosphere-supplying respirator that admits breathing air to the facepiece only when a negative pressure is created inside the facepiece by inhalation.

Emergency situation means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.

Employee exposure means exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

End-of-service-life indicator (ESLI) means a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

Escape-only respirator means a respirator intended to be used only for emergency exit.

Filter or air purifying element means a component used in respirators to remove solid or liquid aerosols from the inspired air.

Filtering facepiece (dust mask) means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Fit factor means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

Fit test means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

Helmet means a rigid respiratory inlet covering that also provides head protection against impact and penetration.

High efficiency particulate air (HEPA) filter means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

Hood means a respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.

Immediately dangerous to life or health (IDLH) means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Interior structural firefighting means the physical activity of fire suppression, rescue or both, inside of buildings and enclosed structures which are involved in a fire situation beyond the incipient stage. (See 29 CFR 1910.155)

Loose-fitting facepiece means a respiratory inlet covering that is designed to form a partial seal with the face.

Maximum use concentration (MUC) means the maximum atmospheric concentration of a hazardous substance from which an employee can be expected to be protected when wearing a respirator and is determined by the assigned protection factor of the respirator or class of respirators and the exposure limit of the hazardous substance. The MUC can be determined mathematically by multiplying the assigned protection factor specified for a respirator by the required OSHA permissible exposure limit, short-term exposure limit, or ceiling limit. When no OSHA exposure limit is available for a hazardous substance, an employer must determine an MUC on the basis of relevant available information and informed professional judgment.

Negative pressure respirator (tight fitting) means a respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

Oxygen deficient atmosphere means an atmosphere with an oxygen content below 19.5% by volume.

Physician or other licensed health care professional (PLHCP) means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e) of this section.

Positive pressure respirator means a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

Powered air-purifying respirator (PAPR) means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

Pressure demand respirator means a positive pressure atmosphere-supplying respirator that admits breathing air to the facepiece when the positive pressure is reduced inside the facepiece by inhalation.

Qualitative fit test (QLFT) means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

Quantitative fit test (QNFT) means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

Respiratory inlet covering means that portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

Self-contained breathing apparatus (SCBA) means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

Service life means the period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

Supplied-air respirator (SAR) or airline respirator means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

This section means this respiratory protection standard.

Tight-fitting facepiece means a respiratory inlet covering that forms a complete seal with the face.

User seal check means an action conducted by the respirator user to determine if the respirator is properly seated to the face.

1910.134(c) Respiratory protection program. This paragraph requires the employer to develop and implement a written respiratory protection program with required worksite-specific procedures and elements for required respirator use. The program must be administered by a suitably trained program administrator. In addition, certain program elements may be required for voluntary use to prevent potential hazards associated with the use of the respirator. The Small Entity Compliance Guide contains criteria for the selection of a program administrator and a sample program that meets the requirements of this paragraph. Copies of the Small Entity Compliance Guide for Respiratory Protection Standard are available from the Occupational Safety and Health Administration at www.osha.gov.

1910.134(c)(1) In any workplace where respirators are necessary to protect the health of the employee or whenever respirators are required by the employer, the employer shall establish and implement a written respiratory protection program with worksite-specific procedures. The program shall be updated as necessary to reflect those changes in workplace conditions that affect respirator use. The employer shall include in the program the following provisions of this section, as applicable:
1910.134(c)(1)(i) Procedures for selecting respirators for use in the workplace;
1910.134(c)(1)(ii) Medical evaluations of employees required to use respirators;
1910.134(c)(1)(iii) Fit testing procedures for tight-fitting respirators;
1910.134(c)(1)(iv) Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations;
1910.134(c)(1)(v) Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators;
1910.134(c)(1)(vi) Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators;
1910.134(c)(1)(vii) Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations;
1910.134(c)(1)(viii) Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance; and
1910.134(c)(1)(ix) Procedures for regularly evaluating the effectiveness of the program.
1910.134(c)(2) Where respirator use is not required:

1910.134(c)(2)(i) An employer may provide respirators at the request of employees or permit employees to use their own respirators if the employer determines that such respirator use will not in itself create a hazard. If the employer determines that any voluntary respirator use is permissible, the employer shall provide the respirator users with the information contained in Appendix D to this section ("Information for Employees Using Respirators When Not Required Under the Standard"); and

1910.134(c)(2)(ii) In addition, the employer must establish and implement those elements of a written respiratory protection program necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator, and that the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user. Exception: Employers are not required to include in a written respiratory protection program those employees whose only use of respirators involves the voluntary use of filtering facepieces (dust masks).

1910.134(c)(3) The employer shall designate a program administrator who is qualified by appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness.

1910.134(c)(4) The employer shall provide respirators, training, and medical evaluations at no cost to the employee.

1910.134(d) Selection of respirators. This paragraph requires the employer to evaluate respiratory hazard(s) in the workplace, identify relevant workplace and user factors, and base

respirator selection on these factors. The paragraph also specifies appropriately protective respirators for use in IDLH atmospheres and limits the selection and use of air-purifying respirators.

1910.134(d)(1) General requirements.

1910.134(d)(1)(i) The employer shall select and provide an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.

1910.134(d)(1)(ii) The employer shall select a NIOSH-certified respirator. The respirator shall be used in compliance with the conditions of its certification.

1910.134(d)(1)(iii) The employer shall identify and evaluate the respiratory hazard(s) in the workplace; this evaluation shall include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. Where the employer cannot identify or reasonably estimate the employee exposure, the employer shall consider the atmosphere to be IDLH.

1910.134(d)(1)(iv) The employer shall select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.

1910.134(d)(2) Respirators for IDLH atmospheres.

1910.134(d)(2)(i) The employer shall provide the following respirators for employee use in IDLH atmospheres:

1910.134(d)(2)(i)(A) A full facepiece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or

1910.134(d)(2)(i)(B) A combination full facepiece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.

1910.134(d)(2)(ii) Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

1910.134(d)(2)(iii) All oxygen-deficient atmospheres shall be considered IDLH. Exception: If the employer demonstrates that, under all foreseeable conditions, the oxygen concentration can be maintained within the ranges specified in Table II of this section (i.e., for the altitudes set out in the table), then any atmosphere-supplying respirator may be used.

1910.134(d)(3) Respirators for atmospheres that are not IDLH.

1910.134(d)(3)(i) The employer shall provide a respirator that is adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations.

1910.134(d)(3)(i)(A) Assigned Protection Factors (APFs) Employers must use the assigned protection factors listed in Table 1 to select a respirator that meets or exceeds the required level of employee protection. When using a combination respirator (e.g., airline respirators with an air-purifying filter), employers must ensure that the assigned protection factor is appropriate to the mode of operation in which the respirator is being used.
1910.134(d)(3)(i)(B) Maximum Use Concentration (MUC)
1910.134(d)(3)(i)(B)(1) The employer must select a respirator for employee use that maintains the employee's exposure to the hazardous substance, when measured outside the respirator, at or below the MUC.
1910.134(d)(3)(i)(B)(2) Employers must not apply MUCs to conditions that are immediately dangerous to life or health (IDLH); instead, they must use respirators listed for IDLH conditions in paragraph (d)(2) of this standard.
1910.134(d)(3)(i)(B)(3) When the calculated MUC exceeds the IDLH level for a hazardous substance, or the performance limits of the cartridge or canister, then employers must set the maximum MUC at that lower limit.
1910.134(d)(3)(ii) The respirator selected shall be appropriate for the chemical state and physical form of the contaminant.
1910.134(d)(3)(iii) For protection against gases and vapors, the employer shall provide:
1910.134(d)(3)(iii)(A) An atmosphere-supplying respirator, or
1910.134(d)(3)(iii)(B) An air-purifying respirator, provided that:
1910.134(d)(3)(iii)(B)(1) The respirator is equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant; or
1910.134(d)(3)(iii)(B)(2) If there is no ESLI appropriate for conditions in the employer's workplace, the employer implements a change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life. The employer shall describe in the respirator program the information and data relied upon and the basis for the canister and cartridge change schedule and the basis for reliance on the data.
1910.134(d)(3)(iv) For protection against particulates, the employer shall provide:
1910.134(d)(3)(iv)(A) An atmosphere-supplying respirator; or
1910.134(d)(3)(iv)(B) An air-purifying respirator equipped with a filter certified by NIOSH under 30 CFR part 11 as a high efficiency particulate air (HEPA) filter, or an air-purifying respirator equipped with a filter certified for particulates by NIOSH under 42 CFR part 84; or
1910.134(d)(3)(iv)(C) For contaminants consisting primarily of particles with mass median aerodynamic diameters (MMAD) of at least 2 micrometers, an air-purifying respirator equipped with any filter certified for particulates by NIOSH.

1910.134(e) Medical evaluation. Using a respirator may place a physiological burden on employees that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Accordingly, this paragraph specifies the minimum requirements for medical evaluation that employers must implement to determine the employee's ability to use a respirator.

1910.134(e)(1) General. The employer shall provide a medical evaluation to determine the employee's ability to use a respirator before the employee is fit tested or required to use the

respirator in the workplace. The employer may discontinue an employee's medical evaluations when the employee is no longer required to use a respirator.

1910.134(e)(2) Medical evaluation procedures.

1910.134(e)(2)(i) The employer shall identify a physician or other licensed health care professional (PLHCP) to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information as the medical questionnaire.

1910.134(e)(2)(ii) The medical evaluation shall obtain the information requested by the questionnaire in Sections 1 and 2, Part A of Appendix C of this section.

1910.134(e)(3) Follow-up medical examination.

1910.134(e)(3)(i) The employer shall ensure that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions 1 through 8 in Section 2, Part A of Appendix C or whose initial medical examination demonstrates the need for a follow-up medical examination.

1910.134(e)(3)(ii) The follow-up medical examination shall include any medical tests, consultations, or diagnostic procedures that the PLHCP deems necessary to make a final determination.

1910.134(e)(4) Administration of the medical questionnaire and examinations.

1910.134(e)(4)(i) The medical questionnaire and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire shall be administered in a manner that ensures that the employee understands its content.

1910.134(e)(4)(ii) The employer shall provide the employee with an opportunity to discuss the questionnaire and examination results with the PLHCP.

1910.134(e)(5) Supplemental information for the PLHCP.

1910.134(e)(5)(i) The following information must be provided to the PLHCP before the PLHCP makes a recommendation concerning an employee's ability to use a respirator:

1910.134(e)(5)(i)(A) (A) The type and weight of the respirator to be used by the employee;
1910.134(e)(5)(i)(B) The duration and frequency of respirator use (including use for rescue and escape);
1910.134(e)(5)(i)(C) The expected physical work effort;
1910.134(e)(5)(i)(D) Additional protective clothing and equipment to be worn; and
1910.134(e)(5)(i)(E) Temperature and humidity extremes that may be encountered.

1910.134(e)(5)(ii) Any supplemental information provided previously to the PLHCP regarding an employee need not be provided for a subsequent medical evaluation if the information and the PLHCP remain the same.
1910.134(e)(5)(iii) The employer shall provide the PLHCP with a copy of the written respiratory protection program and a copy of this section.

Note to Paragraph (e)(5)(iii): When the employer replaces a PLHCP, the employer must ensure that the new PLHCP obtains this information, either by providing the documents directly to the PLHCP or having the documents transferred from the former PLHCP to the new PLHCP. However, OSHA does not expect employers to have employees medically reevaluated solely because a new PLHCP has been selected.
1910.134(e)(6) Medical determination. In determining the employee's ability to use a respirator, the employer shall:
1910.134(e)(6)(i) Obtain a written recommendation regarding the employee's ability to use the respirator from the PLHCP. The recommendation shall provide only the following information:
1910.134(e)(6)(i)(A) Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator;
1910.134(e)(6)(i)(B) The need, if any, for follow-up medical evaluations; and
1910.134(e)(6)(i)(C) A statement that the PLHCP has provided the employee with a copy of the PLHCP's written recommendation.
1910.134(e)(6)(ii) If the respirator is a negative pressure respirator and the PLHCP finds a medical condition that may place the employee's health at increased risk if the respirator is used, the employer shall provide a PAPR if the PLHCP's medical evaluation finds that the employee can use such a respirator; if a subsequent medical evaluation finds that the employee is medically able to use a negative pressure respirator, then the employer is no longer required to provide a PAPR.
1910.134(e)(7) Additional medical evaluations. At a minimum, the employer shall provide additional medical evaluations that comply with the requirements of this section if:
1910.134(e)(7)(i) An employee reports medical signs or symptoms that are related to ability to use a respirator;
1910.134(e)(7)(ii) A PLHCP, supervisor, or the respirator program administrator informs the employer that an employee needs to be reevaluated;
1910.134(e)(7)(iii) Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or
1910.134(e)(7)(iv) A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.
1910.134(f) Fit testing. This paragraph requires that, before an employee may be required to use any respirator with a negative or positive pressure tight-fitting facepiece, the employee must be fit tested with the same make, model, style, and size of respirator that will be used. This paragraph specifies the kinds of fit tests allowed, the procedures for conducting them, and how the results of the fit tests must be used.
1910.134(f)(1) The employer shall ensure that employees using a tight-fitting facepiece respirator pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT) as stated in this paragraph.

1910.134(f)(2) The employer shall ensure that an employee using a tight-fitting facepiece respirator is fit tested prior to initial use of the respirator, whenever a different respirator facepiece (size, style, model or make) is used, and at least annually thereafter.
1910.134(f)(3) The employer shall conduct an additional fit test whenever the employee reports, or the employer, PLHCP, supervisor, or program administrator makes visual observations of, changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.
1910.134(f)(4) If after passing a QLFT or QNFT, the employee subsequently notifies the employer, program administrator, supervisor, or PLHCP that the fit of the respirator is unacceptable, the employee shall be given a reasonable opportunity to select a different respirator facepiece and to be retested.
1910.134(f)(5) The fit test shall be administered using an OSHA-accepted QLFT or QNFT protocol. The OSHA-accepted QLFT and QNFT protocols and procedures are contained in Appendix A of this section.
1910.134(f)(6) QLFT may only be used to fit test negative pressure air-purifying respirators that must achieve a fit factor of 100 or less.
1910.134(f)(7) If the fit factor, as determined through an OSHA-accepted QNFT protocol, is equal to or greater than 100 for tight-fitting half facepieces, or equal to or greater than 500 for tight-fitting full facepieces, the QNFT has been passed with that respirator.
1910.134(f)(8) Fit testing of tight-fitting atmosphere-supplying respirators and tight-fitting powered air-purifying respirators shall be accomplished by performing quantitative or qualitative fit testing in the negative pressure mode, regardless of the mode of operation (negative or positive pressure) that is used for respiratory protection.
1910.134(f)(8)(i) Qualitative fit testing of these respirators shall be accomplished by temporarily converting the respirator user's actual facepiece into a negative pressure respirator with appropriate filters, or by using an identical negative pressure air-purifying respirator facepiece with the same sealing surfaces as a surrogate for the atmosphere-supplying or powered air-purifying respirator facepiece.
1910.134(f)(8)(ii) Quantitative fit testing of these respirators shall be accomplished by modifying the facepiece to allow sampling inside the facepiece in the breathing zone of the user, midway between the nose and mouth. This requirement shall be accomplished by installing a permanent sampling probe onto a surrogate facepiece, or by using a sampling adapter designed to temporarily provide a means of sampling air from inside the facepiece.
1910.134(f)(8)(iii) Any modifications to the respirator facepiece for fit testing shall be completely removed, and the facepiece restored to NIOSH-approved configuration, before that facepiece can be used in the workplace.
1910.134(g) Use of respirators. This paragraph requires employers to establish and implement procedures for the proper use of respirators. These requirements include prohibiting conditions that may result in facepiece seal leakage, preventing employees from removing respirators in hazardous environments, taking actions to ensure continued effective respirator operation throughout the work shift, and establishing procedures for the use of respirators in IDLH atmospheres or in interior structural firefighting situations.
1910.134(g)(1) Facepiece seal protection.
1910.134(g)(1)(i) The employer shall not permit respirators with tight-fitting facepieces to be worn by employees who have:

1910.134(g)(1)(i)(A) Facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function; or
1910.134(g)(1)(i)(B) Any condition that interferes with the face-to-facepiece seal or valve function.
1910.134(g)(1)(ii) If an employee wears corrective glasses or goggles or other personal protective equipment, the employer shall ensure that such equipment is worn in a manner that does not interfere with the seal of the face piece to the face of the user.

1910.134(g)(1)(iii) For all tight-fitting respirators, the employer shall ensure that employees perform a user seal check each time they put on the respirator using the procedures in Appendix B-1 or procedures recommended by the respirator manufacturer that the employer demonstrates are as effective as those in Appendix B-1 of this section.
1910.134(g)(2) Continuing respirator effectiveness.
1910.134(g)(2)(i) Appropriate surveillance shall be maintained of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, the employer shall reevaluate the continued effectiveness of the respirator.
1910.134(g)(2)(ii) The employer shall ensure that employees leave the respirator use area:
1910.134(g)(2)(ii)(A) To wash their faces and respirator facepieces as necessary to prevent eye or skin irritation associated with respirator use; or
1910.134(g)(2)(ii)(B) If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece; or
1910.134(g)(2)(ii)(C) To replace the respirator or the filter, cartridge, or canister elements.
1910.134(g)(2)(iii) If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece, the employer must replace or repair the respirator before allowing the employee to return to the work area.

Cleaning and disinfecting. The employer shall provide each respirator user with a respirator that is clean, sanitary, and in good working order. The employer shall ensure that respirators are cleaned and disinfected using the procedures in Appendix B-2 of this section, or procedures recommended by the respirator manufacturer, provided that such procedures are of equivalent effectiveness. The respirators shall be cleaned and disinfected at the following intervals:
1910.134(h)(1)(i) Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition;
1910.134(h)(1)(ii) Respirators issued to more than one employee shall be cleaned and disinfected before being worn by different individuals;
1910.134(h)(1)(iii) Respirators maintained for emergency use shall be cleaned and disinfected after each use; and
1910.134(h)(1)(iv) Respirators used in fit testing and training shall be cleaned and disinfected after each use.
1910.134(h)(2) Storage. The employer shall ensure that respirators are stored as follows:
1910.134(h)(2)(i) All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the facepiece and exhalation valve.
1910.134(h)(2)(ii) In addition to the requirements of paragraph (h)(2)(i) of this section, emergency respirators shall be:

1910.134(h)(2)(ii)(A) Kept accessible to the work area;
1910.134(h)(2)(ii)(B) Stored in compartments or in covers that are clearly marked as containing emergency respirators; and
1910.134(h)(2)(ii)(C) Stored in accordance with any applicable manufacturer instructions.
1910.134(h)(3) Inspection.
1910.134(h)(3)(i) The employer shall ensure that respirators are inspected as follows:
1910.134(h)(3)(i)(A) All respirators used in routine situations shall be inspected before each use and during cleaning;
1910.134(h)(3)(i)(B) All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with the manufacturer's recommendations, and shall be checked for proper function before and after each use; and
1910.134(h)(3)(i)(C) Emergency escape-only respirators shall be inspected before being carried into the workplace for use.
1910.134(h)(3)(ii) The employer shall ensure that respirator inspections include the following:
1910.134(h)(3)(ii)(A) A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube, and cartridges, canisters or filters; and
1910.134(h)(3)(ii)(B) A check of elastomeric parts for pliability and signs of deterioration.
1910.134(h)(3)(iii) In addition to the requirements of paragraphs (h)(3)(i) and (ii) of this section, self-contained breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be maintained in a fully charged state and shall be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level. The employer shall determine that the regulator and warning devices function properly.
1910.134(h)(3)(iv) For respirators maintained for emergency use, the employer shall:
1910.134(h)(3)(iv)(A) Certify the respirator by documenting the date the inspection was performed, the name (or signature) of the person who made the inspection, the findings, required remedial action, and a serial number or other means of identifying the inspected respirator; and
1910.134(h)(3)(iv)(B) Provide this information on a tag or label that is attached to the storage compartment for the respirator, is kept with the respirator, or is included in inspection reports stored as paper or electronic files. This information shall be maintained until replaced following a subsequent certification.
1910.134(h)(4) Repairs. The employer shall ensure that respirators that fail an inspection or are otherwise found to be defective are removed from service, and are discarded or repaired or adjusted in accordance with the following procedures:
1910.134(h)(4)(i) Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator;
1910.134(h)(4)(ii) Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed; and
1910.134(h)(4)(iii) Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.
1910.134(i)
Breathing air quality and use. This paragraph requires the employer to provide employees using atmosphere-supplying respirators (supplied-air and SCBA) with breathing gases of high purity.
1910.134(i)(1) The employer shall ensure that compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration accords with the following specifications:

1910.134(i)(1)(i) Compressed and liquid oxygen shall meet the United States Pharmacopoeia requirements for medical or breathing oxygen; and
1910.134(i)(1)(ii) Compressed breathing air shall meet at least the requirements for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:
1910.134(i)(1)(ii)(A) Oxygen content (v/v) of 19.5-23.5%;
1910.134(i)(1)(ii)(B) Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
1910.134(i)(1)(ii)(C) Carbon monoxide (CO) content of 10 ppm or less;
1910.134(i)(1)(ii)(D) Carbon dioxide content of 1,000 ppm or less; and
1910.134(i)(1)(ii)(E) Lack of noticeable odor.
1910.134(i)(2) The employer shall ensure that compressed oxygen is not used in atmosphere-supplying respirators that have previously used compressed air.
1910.134(i)(3) The employer shall ensure that oxygen concentrations greater than 23.5% are used only in equipment designed for oxygen service or distribution.
1910.134(i)(4) The employer shall ensure that cylinders used to supply breathing air to respirators meet the following requirements:
1910.134(i)(4)(i) Cylinders are tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR part 173 and part 178);
1910.134(i)(4)(ii) Cylinders of purchased breathing air have a certificate of analysis from the supplier that the breathing air meets the requirements for Grade D breathing air; and
1910.134(i)(4)(iii) The moisture content in the cylinder does not exceed a dew point of -50 deg. F (-45.6 deg.C) at 1 atmosphere pressure.
1910.134(i)(5) The employer shall ensure that compressors used to supply breathing air to respirators are constructed and situated so as to:
1910.134(i)(5)(i) Prevent entry of contaminated air into the air-supply system;
1910.134(i)(5)(ii) Minimize moisture content so that the dew point at 1 atmosphere pressure is 10 degrees F (5.56 deg.C) below the ambient temperature;
1910.134(i)(5)(iii) Have suitable in-line air-purifying sorbent beds and filters to further ensure breathing air quality. Sorbent beds and filters shall be maintained and replaced or refurbished periodically following the manufacturer's instructions.
1910.134(i)(5)(iv) Have a tag containing the most recent change date and the signature of the person authorized by the employer to perform the change. The tag shall be maintained at the compressor.
1910.134(i)(6) For compressors that are not oil-lubricated, the employer shall ensure that carbon monoxide levels in the breathing air do not exceed 10 ppm.
1910.134(i)(7) For oil-lubricated compressors, the employer shall use a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm.
1910.134(i)(8) The employer shall ensure that breathing air couplings are incompatible with outlets for non-respirable worksite air or other gas systems. No asphyxiating substance shall be introduced into breathing air lines.
1910.134(i)(9) The employer shall use breathing gas containers marked in accordance with the NIOSH respirator certification standard, 42 CFR part 84.

1910.134(j) Identification of filters, cartridges, and canisters. The employer shall ensure that all filters, cartridges and canisters used in the workplace are labeled and color coded with the NIOSH approval label and that the label is not removed and remains legible.
1910.134(k) Training and information. This paragraph requires the employer to provide effective training to employees who are required to use respirators. The training must be comprehensive, understandable, and recur annually, and more often if necessary. This paragraph also requires the employer to provide the basic information on respirators in Appendix D of this section to employees who wear respirators when not required by this section or by the employer to do so.
1910.134(k)(1) The employer shall ensure that each employee can demonstrate knowledge of at least the following:
1910.134(k)(1)(i) Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;
1910.134(k)(1)(ii) What the limitations and capabilities of the respirator are;
1910.134(k)(1)(iii) How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
1910.134(k)(1)(iv) How to inspect, put on and remove, use, and check the seals of the respirator;
1910.134(k)(1)(v) What the procedures are for maintenance and storage of the respirator;
1910.134(k)(1)(vi) How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
1910.134(k)(1)(vii) The general requirements of this section.
1910.134(k)(2) The training shall be conducted in a manner that is understandable to the employee.
1910.134(k)(3) The employer shall provide the training prior to requiring the employee to use a respirator in the workplace.
1910.134(k)(4) An employer who is able to demonstrate that a new employee has received training within the last 12 months that addresses the elements specified in paragraph (k)(1)(i) through (vii) is not required to repeat such training provided that, as required by paragraph (k)(1), the employee can demonstrate knowledge of those element(s). Previous training not repeated initially by the employer must be provided no later than 12 months from the date of the previous training.
1910.134(k)(5) Retraining shall be administered annually, and when the following situations occur:
1910.134(k)(5)(i) Changes in the workplace or the type of respirator render previous training obsolete;
1910.134(k)(5)(ii) Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or
1910.134(k)(5)(iii) Any other situation arises in which retraining appears necessary to ensure safe respirator use.
1910.134(k)(6) The basic advisory information on respirators, as presented in Appendix D of this section, shall be provided by the employer in any written or oral format, to employees who wear respirators when such use is not required by this section or by the employer.
1910.134(l) Program evaluation. This section requires the employer to conduct evaluations of the workplace to ensure that the written respiratory protection program is being properly implemented, and to consult employees to ensure that they are using the respirators properly.

1910.134(l)(1) The employer shall conduct evaluations of the workplace as necessary to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective.
1910.134(l)(2) The employer shall regularly consult employees required to use respirators to assess the employees' views on program effectiveness and to identify any problems. Any problems that are identified during this assessment shall be corrected. Factors to be assessed include, but are not limited to:
1910.134(l)(2)(i) Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);
1910.134(l)(2)(ii) Appropriate respirator selection for the hazards to which the employee is exposed;
1910.134(l)(2)(iii) Proper respirator use under the workplace conditions the employee encounters; and
1910.134(l)(2)(iv) Proper respirator maintenance.
1910.134(m) Recordkeeping. This section requires the employer to establish and retain written information regarding medical evaluations, fit testing, and the respirator program. This information will facilitate employee involvement in the respirator program, assist the employer in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA.
1910.134(m)(1) Medical evaluation. Records of medical evaluations required by this section must be retained and made available in accordance with 29 CFR 1910.1020.
1910.134(m)(2) Fit testing.
1910.134(m)(2)(i) The employer shall establish a record of the qualitative and quantitative fit tests administered to an employee including:
1910.134(m)(2)(i)(A) The name or identification of the employee tested;
1910.134(m)(2)(i)(B) Type of fit test performed;
1910.134(m)(2)(i)(C) Specific make, model, style, and size of respirator tested;
1910.134(m)(2)(i)(D) Date of test; and
1910.134(m)(2)(i)(E) The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.
1910.134(m)(2)(ii) Fit test records shall be retained for respirator users until the next fit test is administered.
1910.134(m)(3) A written copy of the current respirator program shall be retained by the employer.
1910.134(m)(4) Written materials required to be retained under this paragraph shall be made available upon request to affected employees and to the Assistant Secretary or designee for examination and copying.
1910.134(n) Effective date. Paragraphs (d)(3)(i)(A) and (d)(3)(i)(B) of this section become effective November 22, 2006.
1910.134(o)
Appendices.
1910.134(o)(1)
Compliance with Appendix A, Appendix B-1, Appendix B-2, and Appendix C of this section is mandatory.
Appendix B-1 to § 1910.134: User Seal Check Procedures (Mandatory)

The individual who uses a tight-fitting respirator is to perform a user seal check to ensure that an adequate seal is achieved each time the respirator is put on. Either the positive and negative pressure checks listed in this appendix, or the respirator manufacturer's recommended user seal check method shall be used. User seal checks are not substitutes for qualitative or quantitative fit tests.

I. Facepiece Positive and/or Negative Pressure Checks

A. Positive pressure check. Close off the exhalation valve and exhale gently into the facepiece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece without any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

B. Negative pressure check. Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the facepiece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove. If the facepiece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

II. Manufacturer's Recommended User Seal Check Procedures

The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided that the employer demonstrates that the manufacturer's procedures are equally effective.

Appendix B-2 to § 1910.134: Respirator Cleaning Procedures (Mandatory)

These procedures are provided for employer use when cleaning respirators. They are general in nature, and the employer as an alternative may use the cleaning recommendations provided by the manufacturer of the respirators used by their employees, provided such procedures are as effective as those listed here in Appendix B- 2. Equivalent effectiveness simply means that the procedures used must accomplish the objectives set forth in Appendix B-2, i.e., must ensure that the respirator is properly cleaned and disinfected in a manner that prevents damage to the respirator and does not cause harm to the user.

I. Procedures for Cleaning Respirators

A. Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure- demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.

B. Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.

C. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain.

D. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:

1. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,
2. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,
3. Other commercially available cleansers of equivalent disinfectant quality when used as directed if their use is recommended or approved by the respirator manufacturer.

E. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.

F. Components should be hand-dried with a clean lint-free cloth or air-dried.

G. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.

H. Test the respirator to ensure that all components work properly.

# SIGNS, SIGNALS AND BARRICADES

Signs shall be used and visible whenever a hazard exists in the workplace. The purpose of signage is to alert workers of imminent dangers to workers.

a) Danger signs shall be used where an immediate hazard exists. Red shall be used to designate danger.
b) Caution signs shall be used where potential hazards exist or to caution against unsafe work practices. Yellow shall be used to designate caution.
c) Exit signs, when necessary, shall be placed such that they are highly visible.
d) All signs, signals, and barricades shall comply with OSHA 1926 Subpart G and applicable ANSI standards.
e) Red "Do Not Use" tags shall be placed on all defective tools and equipment. The effected tool or equipment shall not be used until repaired by an authorized person.
f) Crane signal charts shall be posted in all cranes.

# HAND AND POWER TOOLS

a) All hand and power tools shall be maintained in a safe condition. Employees shall inspect tools before each use and defective or damaged tools shall be removed from service immediately.
b) Employees shall notify their Superintendent or Foreman of any defective or damaged tools. The Superintendent/Foreman shall turn the tool in for repair and or replacement.
c) Guards shall be used on all power operated tools designed to accommodate guards.
d) Personal protective equipment. Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dusts, fumes, mists, vapors, or gases shall be provided with the particular personal protective equipment necessary to protect them from the hazard.
e) Cords and hoses shall be protected from damage and routed through the jobsite such that they are not tripping hazards.
f) Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.
g) The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.
h) Electric powered tools shall either be grounded with a third wire ground or double insulated. Double insulated tools shall be clearly marked as such.
i) All employees shall be protected from shock by the use of Ground Fault Circuit Interrupters.
j) Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.
k) Safety clips or retainers shall be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.
l) Only employees who have been trained in the operation of the particular tool in use shall be allowed to operate a powder-actuated tool.
m) Any tool found not in proper working order, or that develops a defect during use, shall be immediately removed from service, and not used until properly repaired.
n) Personal protective equipment including hearing and eye protection shall be used.
o) Tools shall not be loaded until just before the intended firing time. Neither loaded nor empty tools are to be pointed at any employees. Hands shall be kept clear of the open barrel end.
p) Fasteners shall not be driven into very hard or brittle materials including, but not limited to, cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick, or hollow tile.
q) Follow the manufacturer's guidelines for tool maintenance. Normal cleaning should be conducted daily. A complete cleaning may be necessary during periods of heavy use or constant exposure to dirt and debris. All fuel-powered tools shall be stopped while being refueled, serviced, or maintained.

# WELDING AND CUTTING

Use screens or shields to protect other employees or materials.

**Personal Protective Equipment**

a) Eye Protection – Welder's helmet with filter shade must be worn. Safety glasses must be worn for chipping and grinding if the helmet is removed.
b) Protective Clothing - Wear tightly woven work-weight, fire resistant fabrics and fire-resistant jackets are recommended.
c) Button up your shirt to protect the skin on the throat and neck.
d) Wear long sleeves and pant legs.
e) Cover your head with a fabric cap and hood as necessary.
f) Keep the fabrics clean and free of combustible materials that could be ignited by a spark.
g) Respiratory Protection – Use appropriate respirator when ventilation does not remove welding fumes or when there is risk of oxygen deficiency.
h) Wear suitable welding gloves.

**Gas Cutting**

a) Hose, torches, regulators, and cylinders shall be inspected at the beginning of each shift. Defective equipment shall be removed from service.
b) Use only hoses made especially for welding and cutting to connect an oxy-acetylene torch to gas outlets. Metal-clad or armored hoses are not recommended.
c) Discard any hose in which a flashback has occurred.
d) Pressure-reducing regulators shall only be used with the gases for which they are intended.
e) Never use any gas from a cylinder without first attaching a suitable pressure-reducing regulator to the cylinder valve.
f) Before opening an oxygen cylinder valve, the pressure-reducing regulator should be closed by turning the pressure adjusting screw to the left (counterclockwise) until it turns freely.
g) Flashback arrestors and reverse flow check valves shall be used with oxygen-acetylene torches. Flashback arrestors should be installed at the torch to help protect the technician and at the regulator to help protect equipment.
h) When an oxygen cylinder becomes empty, the fuel gas may back-feed into the oxygen line, regulator, and cylinder. If the regulator is then placed on a new cylinder, and the cylinder value is opened too rapidly, the pressure can increase the temperature of the mixed gas enough to ignite it.
i) Check for nozzle blockage or faulty equipment. Clogged torch tips shall be cleaned with tools designed for this purpose.
j) Torches shall be ignited from friction lighters.
k) Gas cylinders are to be kept secured in an upright position - empty or full, during use or while in storage.
l) Oxygen shall be separated from flammables or combustibles by 20' or a 1/2-hour rated 5' high firewall.

m) Fuel gas shall not be used from cylinders through torches or other devices that are equipped with shutoff valves without reducing the pressure through a suitable regulator attached to the cylinder valve or manifold.
n) Before a regulator to a cylinder valve is connected, the valve shall be opened slightly and closed immediately. The valve of a fuel gas cylinder shall not be cracked where the gas would reach welding work, sparks, flame, or other possible sources of ignition.
o) Open the cylinder valve slowly to prevent damage to the regulator. For quick closing, valves of fuel gas cylinders shall not be opened more than 1 turns. When a special wrench is required, it shall be left in position on the stem of the valve while the cylinder is in use so that the fuel gas flow can be shut off quickly in case of an emergency. In the case of manifold or coupled cylinders, at least one such wrench shall always be available for immediate use. Nothing shall be placed on top of a fuel gas cylinder, when in use, which may damage the safety device or interfere with the quick closing of the valve.
p) Before a regulator is removed from a cylinder valve, the cylinder valve shall always be closed, and the gas released from the regulator.
q) If, when the valve on a fuel gas cylinder is opened, there is found to be a leak around the valve stem, the valve shall be closed, and the gland nut tightened. If this action does not stop the leak, the use of the cylinder shall be discontinued, and it shall be properly tagged and removed from the work area. In the event that fuel gas should leak from the cylinder valve, rather than from the valve stem and the gas cannot be shut off, the cylinder shall be properly tagged and removed from the work area. If a regulator attached to a cylinder valve will effectively stop a leak through the valve seat, the cylinder need not be removed from the work area.
r) If a leak should develop at a fuse plug or other safety device, the cylinder shall be removed from the work area.

**Arc Welding**

a) Employers shall instruct employees in safe means of arc welding and cutting:
b) When electrode holders are to be left unattended, the electrodes shall be removed, and the holders shall be so placed or protected that they cannot make electrical contact with employees or conducting objects.
c) Hot electrode holders shall not be dipped in water; to do so may expose the arc welder or cutter to electric shock.
d) When the arc welder or cutter has occasion to leave his work or to stop work for any appreciable length of time, or when the arc welding or cutting machine is to be moved, the power supply switch to the equipment shall be opened.
e) Any faulty or defective equipment shall be red tagged and reported to the supervisor.
f) A disconnecting means shall be provided in the supply circuit for each motor generated arc welder, and for each AC transformer and DC rectifier arc welder which is not equipped with a disconnect mounted as an integral part of the welder.
g) A switch or circuit breaker shall be provided by which each resistance welder and its control equipment can be isolated from the supply circuit. The ampere rating of this disconnecting means shall not be less than the supply conductor ampacity.

h) Ground and electrode cables must be supported to prevent obstructions from interfering with the safe passage of workers.
i) The ground for the welding cable must be mechanically strong and electrically adequate for the service required.
j) An electrode holder of adequately rated current capacity, insulated to protect the operator against possible shock and to prevent a short or flash when laid on grounded material, must be used.
k) Welding operators and helpers must use eye protection devices. (Refer to OSHA 1926.102 - Eye and Face Protection).
l) Where it is necessary to couple or uncouple several lengths of cable for use as a welding circuit, insulated cable connectors must be used on both the ground line and electrode holder line. Soldered and taped splices may be used for permanent connections.

**Fire Prevention and Protection**

a) A fire watch must be established when the welding, cutting, or heating operation is such that normal fire prevention precautions are not sufficient. These additional personnel shall be assigned to guard against fire while the actual welding, cutting, or heating operation is being performed. They shall remain for at least 30 minutes after completion of the work, to ensure that no possibility of fire exists. Such personnel shall be instructed as to the specific anticipated fire hazards and how the firefighting equipment provided is to be used.
b) Welding and cutting work permits are to be used on all projects that involve occupied buildings or when normal fire prevention precautions are deemed insufficient. Hot work permits can help minimize the risk of fire during cutting and welding activities by serving as a checklist for operators and those performing fire watch duties.
c) The person responsible for issuing permits should be qualified to examine the work site and ensure that appropriate protective steps, such as those listed in this section, have been taken.
d) A hot work permit should be issued at the beginning of each shift for each specific operation.
e) Some facilities require the use of the owners' permit system and their site-specific procedures.
f) For all welding and cutting operations, keep 35' clear of combustibles in all directions.
g) Shield combustible flooring with wet sand, fire retardant tarpaulins or sheet metal.
h) Clean the area of oily deposits and trash.
i) Cover any storage or other combustibles that cannot be moved away.
j) Block off any duct openings where sparks can spread.
k) No welding, cutting or heating shall be done where the application of flammable paints or the presence of other flammable compounds, or heavy dust concentrations creates a hazard.
l) Suitable fire extinguishing equipment shall be immediately available in the work area and shall be maintained in a state or readiness for instant use.
m) When welding, cutting, or heating is performed on walls, floors, and ceilings, since direct penetration of sparks or heat transfer may introduce a fire hazard to an adjacent

area, the same precautions shall be taken on the opposite side as are taken on the side on which the welding is being performed.

n) For the elimination of possible fire in enclosed spaces as a result of gas escaping through leaking or improperly closed torch valves, the gas supply to the torch shall be positively shut off at some point outside the enclosed space whenever the torch is not to be used or whenever the torch is left unattended for a substantial period of time, such as during the lunch period. Overnight and at the change of shifts, the torch and hose shall be removed from the confined space. Open-end fuel gas and oxygen hoses shall be immediately removed from enclosed spaces when they are disconnected from the torch or other gas-consuming device.

o) Except when the contents are being removed or transferred, drums, pails, and other containers that contain or have contained flammable liquids shall be kept closed. Empty containers shall be removed to a safe area apart from hot work operations or open flames.

p) Drums, containers, or hollow structures which have contained toxic or flammable substances shall, before welding, cutting, or heating is undertaken on them, either be filled with water or thoroughly cleaned of such substances and ventilated and tested. Before heat is applied to a drum, container, or hollow structure, a vent or opening shall be provided for the release of any built-up pressure during the application of heat.

**Ventilation**

a) Mechanical ventilation shall consist of either general mechanical ventilation systems or local exhaust systems.

b) General mechanical ventilation shall be of sufficient capacity and so arranged as to produce the number of air changes necessary to maintain welding fumes and smoke within safe limits, as defined in OSHA 1926 Subpart D.

c) Local exhaust ventilation shall consist of freely movable hoods intended to be placed by the welder or burner as close as practicable to the work. This system shall be of sufficient capacity and so arranged as to remove fumes, smoke at the source, and keep the concentration of them in the breathing zone within safe limits as defined in OSHA 1926 Subpart D.

d) Contaminated air exhausted from a working space shall be discharged into the open air or otherwise clear of the source of intake air.

e) All air replacing that withdrawn shall be clean and safe for respiration.

f) Oxygen shall not be used for ventilation purposes, comfort cooling, blowing dust from clothing, or for cleaning the work area.

# FALL PROTECTION

Fall Management is an important part of the ZCI safety program. It is our objective to minimize or eliminate fall hazards at all of our jobsites through a Fall Protection program. This program is based on the following four elements – Fall Management Requirements, Pre-Planning, Employee Training, and Program Surveillance. In the event a fall or other serious incident occurs, the employer shall investigate the circumstances of the incident to determine if the fall protection plans need changed, and if so, shall implement those changes to prevent similar types of incidents.

Fall Management Requirements

A. General Requirement: OSHA's Subpart M, Fall Protection, requires that all employees exposed to falls of six feet or more above lower levels shall be protected from falling by guardrails, safety nets or personal fall arrest systems. Some owners and many sites are implementing fall protection or prevention be utilized at four feet.

B. Exceptions: There are many areas exempt from the six-foot rule because they have their own OSHA Subparts, such as structural steel erection and scaffolding. There are also some work activities, which possibly could qualify for an exception to the six-foot rule, according to Subpart M. These are:

    1. Leading edge work as performed by concrete forming of decks.
    2. Precast concrete erection, including wall panels, columns, beams and floor, and roof "tees."
    3. Residential construction.
    4. Roofing work on low slope roofs.

The exception is only permitted when the employer can demonstrate that it is infeasible or creates a greater hazard to use a fall protection system. If the work task qualifies for an exception, then the employer must develop and implement a Fall Protection Plan, which meets specific OSHA requirements.

C. Fall Protection Plan: Once it has been determined which subcontractors will be performing the tasks which could qualify for an exception, the Superintendent must be informed by the subcontractor as to the fall protection system to be utilized. If the subcontractor informs ZCI that it is infeasible or would create a greater hazard by providing fall protection, then the subcontractor will not be permitted to begin work without a detailed Fall Protection Plan. It is important to note that OSHA presumes that it is feasible and will not create a greater hazard to implement at least one of the above listed fall protection systems. Accordingly, the employer has the burden of establishing that it is appropriate to implement a fall protection plan, which complies with OSHA's requirements.

Subcontractors who wish to follow a Fall Protection Plan must conform to the following provisions mandated by OSHA:

1. The Fall Protection Plan shall be prepared by a qualified person and developed specifically for the site where the leading-edge work, precast concrete work, or residential construction work is being performed; and the plan must be maintained up-to-date.

2. A qualified person should approve any changes to the Fall Protection Plan.

3. A copy of the Fall Protection Plan shall be maintained at the jobsite.

4. The implementation of the Fall Protection Plan shall be under the supervision of a competent person.

5. The Fall Protection Plan shall document the reasons why the use of conventional fall protection systems is not feasible or why their use would create a greater hazard.

6. The plan shall include a written discussion of other measures that will be taken to reduce or eliminate the fall hazard.

7. The plan shall identify each location where conventional fall protection methods cannot be used. These locations shall be classified as controlled access zones.

8. Where no other alternative measure has been implemented, the employer shall implement a safety monitoring system.

9. The plan must include a statement, which provides the name or other method of identification for each employee who is designated to work in the controlled access zone.

D. Controlled Access Zones: Controlled access zones and their use shall conform to 1926.502 (G) as summarized in the following provisions. When used to control access to areas where leading edge and other operations are taking place the controlled access zone shall be defined by a control line or by any other means that restricts access. When control lines are used, they shall be erected not less than 6 feet nor more than 25 feet from the unprotected or leading edge, except when erecting precast concrete members. When erecting precast concrete members, the control line shall be erected not less than 6 feet nor more than 60 feet or half the length of the member being erected, whichever is less, from the leading edge. The control line shall extend along the entire length of the unprotected or leading edge and shall be approximately parallel to the unprotected or leading edge. The control line shall be connected on each side to a guardrail system or wall. When used to control access to areas where overhand bricklaying and related work are taking place, the controlled access zone shall be defined by a control line erected not less than 10 feet nor more than 15 feet from the working edge. The control line shall extend for a distance sufficient for the controlled access zone to enclose all employees performing overhand bricklaying and related work at the working edge and shall be approximately parallel to the working edge. Additional control lines shall be erected at

each end to enclose the controlled access zone. Only employees engaged in overhand bricklaying or related work shall be permitted in the controlled access zone. Control lines shall consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows: Each line shall be flagged or otherwise clearly marked at not more than 6-foot intervals with high-visibility material. Each line shall be rigged and supported in such a way that its lowest point (including sag) is not less than 39 inches from the walking/working surface and its highest point is not more than 45 inches (50 inches when overhand bricklaying operations are being performed) from the walking/working surface. Each line shall have a minimum breaking strength of 200 pounds. On floors and roofs where guardrail systems are not in place prior to the beginning of overhand bricklaying operations, controlled access zones shall be enlarged, as necessary, to enclose all points of access, material handling areas, and storage areas. On floors and roofs where guardrail systems are in place but need to be removed to allow overhand bricklaying work or leading-edge work to take place, only that portion of the guardrail necessary to accomplish that day's work shall be removed.

E. Safety Monitoring Systems: Safety Monitoring Systems and their use shall comply with the provisions of OSHA 1926.502(h) as summarized here. ZCI shall designate a competent person to monitor the safety of other employees and the employer shall ensure that the safety monitor complies with the following requirements: The safety monitor shall be competent to recognize fall hazards; shall warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner; shall be on the same walking/working surface and within visual sighting distance of the employee being monitored; shall be close enough to communicate orally with the employee; and shall not have other responsibilities which could take the monitor's attention from the monitoring function. Mechanical equipment shall not be used or stored in areas where safety monitoring systems are being used to monitor employees engaged in roofing operations on low-slope roofs. No employee, other than an employee engaged in roofing work [on low-sloped roofs] or an employee covered by a fall protection plan, shall be allowed in an area where an employee is being protected by a safety monitoring system. Each employee working in a controlled access zone shall be directed to comply promptly with fall hazard warnings from safety monitors.

F. Roofing Work on Low-Slope Roofs: Employees engaged in roofing activities on low-slope roofs with unprotected sides and edges 6 feet or more above lower level shall be protected from falling by one of the following methods:

1. A Guardrail system.
2. A safety net system.
3. A personal fall arrest system.
4. A combination of warning line system and either:
    a. A guardrail system, or
    b. A safety net system, or
    c. A personal fall arrest system, or
    d. A safety monitoring system.
5. On roofs 50 ft. or less in width, the use of a safety monitoring system alone.

More information about these systems can be found in OSHA standard 1926.502.

G. Roofing work on steep roofs (4 in 12 or greater): Each employee on a steep roof with unprotected sides and edges 6 feet or more above lower levels shall be protected from falling by guardrail systems with toe boards, safety net systems or personal fall arrest systems. The warning line system and/or safety monitoring system cannot be used on steep roofs.

H. Overhand Bricklaying and related work: Each employee performing overhand bricklaying and related work 6 feet or more above lower levels shall be protected from falling by guardrail systems, safety net systems, controlled access zones, or personal fall arrest systems. When personal fall arrest systems are used the work must take place within a Controlled Access Zone to prevent non-essential personnel from fall exposures.

I. Hoist Areas: Each employee in a hoist area shall be protected from falling 6 feet or more to lower levels by guardrail systems or personal fall arrest systems. If guardrails are removed to facilitate the hoisting operation and an employee must lean through the access opening or out over the edge of the access opening, that employee shall be protected by a personal fall arrest system. It is also that employee's responsibility to see that the hoist area is not left unattended while the guardrails are not in place, and then to replace those guardrails upon the completion of the hoisting operations.

J. Holes: Each employee on walking/working surfaces shall be protected falling through holes more than 6 feet above lower levels by personal fall arrest systems, covers or guardrail systems erected around such holes. If covers are used, the covers shall be secured in place, constructed to withstand twice the expected load, and marked "cover" or "hole."

"Safety monitoring systems." Safety monitoring systems and their use shall comply with the provisions of OSHA 1926.502(h) as summarized here: The employer shall designate a competent person to monitor the safety of other employees and the employer shall ensure that the safety monitor complies with the following requirements: The safety monitor shall be competent to recognize fall hazards; shall warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner; shall be on the same walking/working surface and within visual sighting distance of the employee being monitored; shall be close enough to communicate orally with the employee; and shall not have other responsibilities which could take the monitor's attention from the monitoring function. Mechanical equipment shall not be used or stored in areas where safety monitoring systems are being used to monitor employees engaged in roofing operations on low-slope roofs. No employee, other than an employee engaged in roofing work [on low-sloped roofs] or an employee covered by a fall protection plan, shall be allowed in an area where an employee is being protected by a safety monitoring system. Each employee working in a controlled access zone shall be directed to comply promptly with fall hazard warnings from safety monitors.

1. The top edge of top rails shall be 42 in. above the walking/working level.

2. Mid-rails shall be installed at 21 in.
3. Guardrail systems shall be capable of withstanding a 200 lb. Force in any outward or downward direction, at any point along the top edge.
4. Guardrail systems shall be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.
5. If wire rope is used for top rails, it must be flagged at not more than 6-ft. intervals with a high visibility material.
6. When guardrail systems are used around holes, which are used as points of access (such as ladder ways), they shall be provided with a gate, or be so offset that a person cannot walk directly into the hole.

More information on guardrail systems can be found in OSHA standard 1926.502 (b).

Personal Fall Arrest Systems

A. All ZCI employees shall wear full body harnesses for fall protection. In conjunction with the safety harness, a shock-absorbing lanyard or retractable lifeline shall be used. Effective January 1, 1998, OSHA will no longer allow safety belts as part of a fall arrest system. They will only be allowed as part of a positioning device system. Personal fall arrest systems. Personal fall arrest systems and their use shall comply with the provisions set forth below.

B. Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials. Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.

C. Dee-rings and snap hooks shall have a minimum tensile strength of 5,000 pounds. Dee-rings and snap hooks shall be proof-tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or taking permanent deformation.

D. Snap hooks shall be sized to be compatible with the member to whom they are connected to prevent unintentional disengagement of the snap hook by depression of the snap hook keeper by the connected member; or shall be a locking type snap hook designed and used to prevent disengagement of the snap hook by the contact of the snap hook keeper by the connected member. Effective January 1, 1998 only locking type snap hooks shall be used.

E. Unless the snap hook is a locking type and designed for the following connections, snap hooks shall not be engaged:

    1. Directly to webbing, rope or wire rope;
    2. To each other;
    3. To a Dee-ring to which another snap hook or other connector is attached;
    4. To a horizontal lifeline; or
    5. To any object that is incompatibly shaped or dimensioned in relation to the snap hook such that unintentional disengagement could occur by the connected object being able to depress the snap hook keeper and release itself.

F. On suspended scaffolds or similar work platforms with horizontal lifelines that may become vertical lifelines, the devices used to connect to a horizontal lifeline shall be capable of locking in both directions on the lifeline.

G. Horizontal lifelines shall be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.

H. Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds. Except as provided in OSHA 1926.502 (d)(10)(ii), when vertical lifelines are used, each employee shall be attached to a separate lifeline.

I. During the construction of elevator shafts, two employees may be attached to the same lifeline in the hoist way, provided:

1. Both employees are working atop a false car that is equipped with guardrails;
2. The strength of the lifeline is 10,000 pounds (5,000 pounds per employee attached);
3. All other criteria specified in this paragraph for lifelines have been met.

J. Lifelines shall be protected against being cut or abraded.

K. Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet or less shall be capable of sustaining a minimum tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

L. Self-retracting lifelines and lanyards which do not limit free fall distance to 2 feet or less, rip-stitch lanyards, and tearing and deforming lanyards shall be capable of sustaining a minimum tensile load of 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

M. Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body belts and body harnesses shall be made from synthetic fibers.

N. Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached, or shall be designed, installed, and used as follows:

1. As part of a complete personal fall arrest system which maintains a safety factor of at least two; and
2. Under the supervision of a qualified person.

O. Personal fall arrest systems, when stopping a fall, shall:

1. Limit maximum arresting force on an employee to 900 pounds when used with a body belt;
2. Limit maximum arresting force on an employee to 1,800 pounds when used with a body harness;
3. Be rigged such that an employee can neither free fall more than 6 feet, nor contact any lower level;
4. Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet; and,
5. Have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet, or the free fall distance permitted by the system, whichever is less.

**Note:** If an employee having a combined tool and body weight of 310 pounds or more uses the system, then the employer must appropriately modify the criteria and protective systems to accommodate the loads imposed by these increased forces.

P. The attachment point of the body belt shall be located in the center of the wearer's back. The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.

Q. Body belts, harnesses, and components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.

R. Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.

S. The employer shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.

T. Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.

U. Body belts shall be at least one and five-eighths (1 5/8) inches wide.

V. Personal fall arrest systems shall not be attached to guardrail systems, nor shall they be attached to hoists except as specified in OSHA 1926 Subpart M.

W. When a personal fall arrest system is used at hoist areas, it shall be rigged to allow the movement of the employee only as far as the edge of the walking/working surface.

Positioning Device Systems

Positioning device systems and their use shall conform to the following provisions:

A. Positioning devices shall be rigged such that an employee cannot free fall more than 2 feet.

B. Positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds whichever is greater.

C. Connectors and snap hooks shall conform to the requirements of Personal Fall Arrest Systems Items B through E above.

D. Positioning device systems shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.

E. Body belts, harnesses, and components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.

FALL PROTECTION GUIDELINES

The following table lists the construction activity, the maximum height without fall protection, and possible fall management techniques.

| **Construction Activity** | **Process** | **Maximum Height** | **Solution** |
|---|---|---|---|
| Concrete Forming – Vertical walls and columns | Stick built<br><br>Gang forms | 6’<br><br>6’ | - Bracket with guardrails<br>- Frame scaffold 1 side<br>- Ladders<br>- Retractable w/full body harness |
| Concrete forming – Decking | Leading Edge | 6’ | - Retractable w/full body harness<br>-Stanchion and Horizontal Lifeline System<br>- Fall Protection Plan and Controlled Access Zone |
| Precast concrete-Decks, columns & walls | Placement | 6’ | - Aerial Lifts<br>- Ladders<br>- Scaffolding<br>- Retractable<br>- Fall Protection Plan and Controlled Access Zone |
| Structural Steel Erection And Metal Decking | Multi-story<br><br>Single story | 15’ interior<br>15’ exterior<br><br>15’ | - Aerial Lifts<br>- Nets<br>- Retractable<br>- Planking<br>- Static Lines<br>- Personal fall arrest system |

| | | | |
|---|---|---|---|
| Roofing | Flat Roof | 6’ | - Guardrails<br>- Horizontal Lifeline System<br>- Safety nets<br>- Personal fall arrest system<br>- Combination of any above and warning line system |
| | Steep Roof (4 in 12 or > | 6’ | - Guardrails<br>- Safety Nets<br>- Personal fall arrest system |

Pre-Planning

Each phase of the construction project shall be evaluated for fall hazards by completing the Fall Protection section of the ZCI Project Safety Plan. Any fall hazard that could reasonably be expected to be encountered by any tradesmen o the project shall be documented. Once the potential hazards are identified, a method of abatement or form of personal protective equipment shall be specified. If a subcontractor chooses to follow a Fall Protection Plan, it must be submitted to ZCI before their work can begin.

Employee Training

When situations on the project arise that require the use of fall protection, it is necessary to provide employee training. The goal of the training is to enable each employee to recognize fall hazards in the work area, and effectively implement procedures to reduce or eliminate these fall hazards. The employees shall be trained in the following areas:

A. The nature of the fall hazards in the work area.
B. The correct procedures for erecting, maintaining, disassembling and inspecting the fall protection system to be used.
C. The use and operation of the specific fall protection system to be used.
D. The relevant OSHA standards found in 1926 Subpart M.

The training shall be conducted by a competent person and documented using the ZCI Task Hazard Analysis form, or in the case of a subcontractor, their safety meeting form. Employees found to be in violation of any fall protection rule shall be retrained. Retraining will be required when deficiencies in training occur, workplace changes warrant it, fall protection systems or equipment changes rendering previous training obsolete.

Program Surveillance

Superintendents and Foremen shall monitor the Fall Management Program to ensure that the program is in compliance with OSHA and ZCI safety regulations. When a situation arises that

comprises the Fall Management Program, work shall be halted until the program is modified to provide the necessary level of protection.

Fall Protection Equipment Inspection

Fall protection equipment should be inspected before each use. The following sections are general guidelines for fall protection inspection. Each manufacturer provides more detailed information. All equipment must meet the requirements of applicable ANSI, ASTM, or OSHA requirements.

A. Full Body Harnesses shall be inspected before each use. If a harness has been subjected to fall arrest forces it must be immediately removed from use and marked or tagged "DO NOT USE." The equipment shall be forwarded to the Safety Director for inspection and disposal.

    1. Inspect the labels on the harness to verify that they are present and legible.
    2. Inspect all webbing and stitching for cuts, fraying, pulled or broken threads, abrasion, excessive wear, altered or missing straps, burns, heat and chemical exposures.
    3. Inspect all metallic parts such as D-rings, oval rings, buckles, adjusters, and grommets. Look for deformation, fractures, cracks, corrosion, deep pitting, burrs, sharp edges, cuts, deep nicks, missing or loose parts, improper function, and evidence of heat or chemical exposures.
    4. Inspect all plastic parts such as the back d-ring locator, strap collars, labels, and tool belt support clips. Look for cut, broken, excessively worn, missing or loose parts, burns, and evidence of heat or chemical exposures.

B. Lanyards shall be inspected before each use. If a lanyard has been subjected to fall arrest forces it must be immediately removed from use and marked or tagged "DO NOT USE". The equipment shall be forwarded to the Yard for inspection and disposal.

    1. Inspect the labels on the lanyard to verify that they are present and legible.
    2. Inspect all fabric parts including the shock absorber, webbing and stitching for damage, tears, cuts, burns, alteration, broken or loose stitching and damage from heat or chemical attack.
    3. Inspect all metallic parts for evidence of defects, damage alteration, and missing parts. Look for deformation, fractures, cracks, corrosion, deep pitting, burrs, sharp edges, cuts, deep nicks, missing or loose parts, improper function, and evidence of heat or chemical exposures.
    4. Inspect carabineer and snap hook function by cycling their unlocking, opening, closing and locking features several times. Gates must close automatically and snugly seat against the nose. Inspect the gate for loose rivets, weak springs, and binding of the gate or lock.
    5. Inspect all plastic parts for cuts, broken parts, excessive wear, missing or loose parts, burns, and evidence of heat or chemical exposures.

C. Retractable Lanyards shall be inspected before each use. If a Retractable Lanyard has been subjected to fall arrest forces it must be immediately removed from use and marked or tagged "DO NOT USE." The equipment shall be forwarded to the yard for inspection and disposal.

1. Test the lanyard retraction and tension by mounting the device to a secure anchorage point. Pull several feet of the lanyard out and allow it to retract back into the unit. Always maintain light tension on the lanyard as it retracts. The lanyard should pull out freely and retract all the way back into the unit.

2. If the lanyard does not pull out smoothly or sticks when retracting, pull the entire lanyard out of the housing and allow it to retract slowly under tension.

3. The lanyard should be checked for signs of damage such as cuts, burns, corrosion, kinks, frays, or worn areas. Inspect any sewing for loose broken or damaged stitches.

4. Test the braking mechanism by grasping the lifeline above the impact indicator and applying a sharp steady pull downward that will engage the brakes. There should be no slippage of the lifeline when the brakes are engaged. Once the tension is released the brakes will disengage and the unit will return to the retractable mode.

5. Check the snap hook or carabineer to be sure that it operates freely and locks. Inspect carabineer and snap hook function by cycling their unlocking, opening, closing, and locking features several times. Gates must close automatically and snugly seat against the nose. Inspect the gate for loose rivets, weak springs, and binding of the gate or lock.

6. The load indicator should be inspected for exposure to fall arrest forces. If this condition is indicated it must be immediately removed from use and marked or tagged "DO NOT USE." The equipment shall be forwarded to the Safety Director for inspection and disposal.

# LADDERS

Personnel who work from ladders face serious injury or death if those ladders are not used in a safe and legal manner. Ziolkowski Construction, Inc. has developed this written plan to familiarize all employees in the safe and efficient use of ladders on the job site. The following is a guideline to aid you in the proper use of ladders and to help you comply with any applicable OSHA regulations.

More information can be found in OSHA regulations, 29 CFR 1926.1050-1060 and other applicable sections.

As with any tool, choose the correct ladder for the task to be accomplished. Typical ladders found on a construction site are fixed or portable, and the portable types are straight, extension, and stepladders. Each has its own usage and hazards; know what type you are using and how to use it properly.

Each ladder, no matter what type, must be inspected before use. The ladder should be clean and free of dirt, grease, or other debris, must be straight, have no broken or bent rungs, check for split or cracked wood or fiberglass and safety feet should be in good working order. If any defects are found, immediately tag the ladder out of service and send to the yard for repair or replacement.

When portable ladders are used, the ladder side rails shall extend a minimum of three (3) feet above the landing surface.

When climbing a ladder, always face forward, climb slowly with both hands on the rails, taking one step at a time. Hoist tools or material after exiting the ladder and never carry anything that could cause you to fall from the ladder.

If work is to be performed from a ladder, do not overreach. Keep your belt buckle, between the side rails, at all times. If one hand cannot be kept on the ladder at all times, then you must be properly tied off while working to prevent a fall hazard. If working on a stepladder be sure the spreader lock is functional, never stand on the top two steps, and do not climb the rear cross bracing unless it was designed for access.

While moving, extending, or lowering extension ladders clear the area and stay away from sources of electrical energy. Never move, extend, or lower an extension ladder while standing on it.

Place the base of the ladder on a firm, even surface. Rope off or barricade the area around the ladder if it is in a high traffic area. Straight or extension ladders must extend three feet above the upper landing and be securely tied off to prevent tipping. The base of the ladder must be placed one foot out for every four feet in ladder height. Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced when the ladder is in position for use. All ladders must be construction grade and be made of non-conductive materials.

# Ladders

Two or more ladders, or a double-cleated ladder, will be provided where 25 or more employees will be conducting work in an area where ladders serve as the primary means of egress, or where ladders serve two-way traffic.

Non-self-supporting ladder shall be positioned so that the foot of the ladder is one-quarter of the working length away from the support.

Never overload a ladder. Before using, make certain the ladder is capable of withholding the intended load. Only use a ladder for the purpose for which it was intended.

Ladders shall be used only on stable and level surfaces.

Ladders shall not be used on scaffolds.

Job-made ladders must conform to all applicable OSHA, ANSI and state or local laws regarding their construction and usage.

# SCAFFOLDING POLICY

1. Erection, dismantling, movement, or alteration of scaffold must be under the supervision of a competent person, as defined by OSHA. Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

2. A competent person must inspect scaffold before every work shift, or after any changes that might affect the structural integrity of the scaffold. Any defective components must be repaired, tagged out of service or replaced. Whenever feasible have a second competent person on site to aid in the inspection, erection, and dismantling of all scaffolding.

3. Scaffold users shall be trained in the safe use of scaffolding. Training shall consist of the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards, including as applicable: electrical hazards, fall hazards, falling object hazards, procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used; proper use of the scaffold, and the proper handling of materials on the scaffold; maximum intended load and the load-carrying capacities of the scaffolds used; and other pertinent requirements. Retraining may be necessary if the user's actions dictate.

4. Fall Protection/Access:
    - A competent person must determine if fall protection can safely be provided to workers for erection or dismantling of the scaffold.
    - A competent person must provide a safe means of access for erection and dismantling of the scaffold.
    - A safe means of access must be provided for accessing the scaffold (this must be provided any time the platform is greater than 24" from the access surface.)
    - Do not climb scaffold frames unless it is approved by the scaffold manufacturer.
    - Never climb cross braces.
    - Ramps or walkways 6' in height must have guard rails.
    - Guardrails and toe boards shall be installed when the working level reaches six feet. Falling object protection is needed when people are under the scaffold.
    - Front edge of scaffold must be no further than 14" from work face, unless fall protection is provided.

5. Planking/Working surface:
    - Except during erection or dismantling, the working surface must be fully planked.
    - Plank must be scaffold grade.
    - Plank must overlap support a minimum of 6" and a maximum of 12". Planks overlapping each other, must overlap at least 12" or be securely fastened to each other.
    - Platforms and walkways must be a minimum of 18" wide.

- Personnel Brackets cannot be used to stock or store material. They are for workers only.

6. Base plates must be installed under all scaffolding and locking pins must be used on base plates, caster wheels, and end frames.

7. Scaffold must be fully braced, level and plumb.

8. Scaffold must be securely tied and braced into wall when the height exceeds 4 times the width. The scaffold must be tied in at least every 26' vertically and 30' horizontally. Additional tie ins are required when enclosures are used on scaffolding.

9. Scaffold shall not be loaded in excess of maximum intended load or maximum rated capacity, whichever is less.

10. Tag lines must be used when swinging loads onto or near scaffold.

11. No items may be placed on top of scaffold to raise the working level above the platform, e.g. no working off of buckets, or ladders on the scaffold.

12. Overhead protection must be provided for workers on the scaffold if there is a hazard of items being dropped from above.

13. Site Conditions:
    - Work will not be performed on scaffold during storms or high winds, which are any winds or wind gusts above 25 mph.
    - Scaffold must be free of ice, snow and any other debris, which could cause a health hazard.
    - Scaffold shall not be located within 10' of electrical lines, unless approved by Safety Director.
    - Scaffold must be erected on a firm, level surface and mudsills used as appropriate.
    - Precautions must be taken to prevent uplift and overturning.
    - Follow manufacturer's recommendations or a qualified professional for the installation and use of winter protection. The use of winter protection increases the odds of scaffolding tip-over and collapse. Additional tie-ins and specific type of material used may be required.

## SCAFFOLD PLANK INSPECTION

1. Use only Scaffold Grade Planking. The plank must be stamped as such. For example, see Fig. 1.

2. Plank must be inspected before each use, and after any incident that may have damaged it so as to affect its structural integrity.

3. Check for splits:
    - For a 6’ to 8’ span: No splits longer than 6”-12” on either end.
    - For a 10’-12’ span: No splits longer than 9”-18” on either end.
    - No splits within the center 1/3 of plank.

4. Check for Saw Kerfs:
    - Prohibited in first one foot of either end or center 1/3 of plank.

5. Check for Knots:
    - Knots in scaffold grade plank are not a concern unless they are loose.
    - Knots shall not exceed 1/5 of surface area (2 inches.)

6. Check for Contamination:
    - Planks that have been exposed to Caustics/Acids should not be used. These chemicals can dissolve the natural or manufactured gluing agents that are necessary to maintain plank integrity.
    - Improper moisture content can cause rot and degrade plank integrity.

7. Do not use plank that may have been damaged due to any misuse or other circumstance. Planking that has been overloaded, abused, stored improperly, etc. may not support its intended load. Do not use plank that has been used as mudsills.

8. Plank should be free of debris (i.e. paint, mortar, and mud) that prevents a proper inspection or causes a tripping hazard.

9. Plank that fails to meet inspection requirements shall be marked with orange spray paint on each end and cut to a size that will remove the defect permitting it to be used as a mudsill.

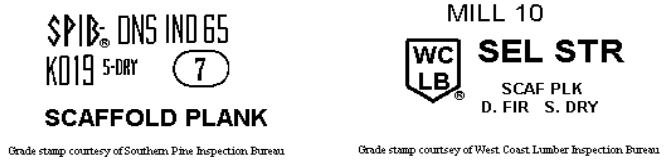


*Fig. 1*

# AERIAL WORK PLATFORMS

1. This section shall address extensible boom platforms, aerial ladders, scissor lifts, articulating boom platforms, and all other elevating lift devices as defined by OSHA.
2. Never field modify any aerial work platform. Manufacturer guidelines must always be followed unless modification is allowed in writing from the manufacturer.
3. Inspect all lifts prior to use. If the equipment is found deficient or defective it must be tagged out of service and repaired.
4. All employees must have appropriate training and authorization before using any aerial work platform.
5. Harnesses and lanyards must be properly used at all times according to OSHA standards. Lanyards must be attached to designated attached points while machine is in use. Ziolkowski has implemented the use of Self Retracting Lanyards in AWPs when there is the possibility of a falling worker striking a lower level or other obstruction.
6. Aerial work platforms are for working at height. At no time shall they be used as a "material elevator."
7. Never exceed manufacturer load limits or deviate from manufacturer operating instructions and safety guidelines.
8. Always check all controls before using any lift and visually inspect the work area for overhead hazards, ground stability, traffic, and other environmental hazards.
9. All equipment which requires a backup alarm shall have one in operation. However, a spotter may be used until the backup alarm is available.
10. Employees shall stand firmly on the floor and shall not climb on the rails or the edge of the basket.
11. Maintain a minimum clearance between electrical lines and any part of the equipment of at least 10 feet, unless a qualified person has determined the minimum safe distance is closer than 10 feet.

# FORKLIFT SAFETY POLICY

Purpose

To increase jobsite safety through required powered industrial truck (forklift) operator training.

Policy

Each operator of a forklift shall maintain a valid certification of forklift training for the classification of forklift truck being used.

Background

The American Society of Mechanical Engineers (ASME) defines a **powered industrial truck** as a mobile, power-propelled truck used to carry, push, pull, lift, stack, or tier materials. Powered industrial trucks are also commonly known as forklifts, pallet trucks, rider trucks, rough terrain forklifts, fork trucks, or lift trucks. Concrete and masonry contractors often use these pieces of equipment on our job sites. Powered industrial trucks are classified by their manufacturers according to their individual characteristics. There are seven classes of powered industrial trucks:

Class 1 - Electric Motor, Sit-down Rider, Counter-Balanced Trucks (Solid and Pneumatic Tires).
Class 2 - Electric Motor Narrow Aisle Trucks (Solid Tires).
Class 3 - Electric Motor Hand Trucks or Hand/Rider Trucks (Solid Tires).
Class 4 - Internal Combustion Engine Trucks (Solid Tires).
Class 5 - Internal Combustion Engine Trucks (Pneumatic Tires).
Class 6 - Electric and Internal Combustion Engine Tractors (Solid and Pneumatic Tires).
Class 7 - Rough Terrain Forklift Trucks (Pneumatic Tires).

Each of the different types of powered industrial trucks has their own unique characteristics and some inherent hazards. To be most effective, training must address the unique characteristics of the type of vehicle(s) the employee is being trained to operate.

Training

A. Each forklift operator shall be trained by a qualified instructor in the safe operation of forklifts. The formal training program should include the following elements:

    1. Load Chart Application
    2. Seat Belts
    3. Traveling with Loads
    4. Positioning of Loads
    5. Boom Angle Indicators
    6. Hand Signals
    7. Inspection

8. Maintenance

B. A written test is not mandatory, but a "hands-on practical demonstration" of skills is required and practical training may be required after the demonstration is observed. Written Certification is required, and records need to be kept regarding specific training information. Evaluations of each operator's performance are required as part of the initial and refresher training, and at least once every three years. Refresher training is required if:

1. the operator is involved in an accident or a near-miss incident;
2. the operator has been observed operating the vehicle in an unsafe manner;
3. the operator has been determined during an evaluation to need additional training;
4. there are changes in the workplace that could affect safe operation of the forklift;
5. or the operator is assigned to operate a different type of forklift.

Inspection

Although forklifts are designed to perform rugged tasks, each time they are used they can be damaged in any number of ways. That is why inspection is of critical importance. At the start of each shift, perform both a visual inspection of the general condition and cleanliness of the lift truck, as well as an operational check to test its proper functioning. If you notice anything that may affect the normal operation of the forklift, immediately alert your supervisor so that the equipment can be tagged out and repaired if necessary.

A. Checklist for Visual Inspection
1. Floor--clear of objects that could cause an accident no obstructions overhead
2. Note any nearby objects to avoid as you drive away
3. Fire extinguisher present, and charged
4. Engine oil level, fuel level, radiator water level (LPG, gas and diesel forklifts)
5. Battery fully charged and securely in place
6. Cables for exposed wires
7. Battery plug connections not loose, worn or dirty
8. Vent caps not clogged
9. Electrolyte levels in cells
10. Hold downs or brackets
11. Bolts, nuts, guards, chains, or hydraulic hose reels not damaged, missing or loose
12. Wheels and tires not worn or damaged
13. Air pressure of pneumatic tires
14. Forks not bent or cracked
15. Positioning latches in good working condition
16. Carriage teeth not broken, chipped or worn
17. Chain anchor pins not worn, loose or bent
18. No damp spots or drips that may indicate a leak

19. Hoses held securely, not loose, crimped, worn or rubbing

B. Checklist for Operational Pre-Use Inspection.
   1. Horn working and loud enough to be heard in working environment; other warning devices operational
   2. Floor brake: pedal holds, unit stops smoothly
   3. Parking brake: holds against slight acceleration
   4. Deadman seat brake.: holds when operator rises from seat
   5. Clutch and gearshift: shifts, smoothly with no jumping or jerking
   7. Dash control panel: all lights and gauges operational steering.: moves smoothly
   8. Lift mechanism: operates smoothly (check by raising forks to maximum height then lowering completely)
   9. Tilt mechanism: moves smoothly, holds (check by tilting mast all the way forward and backward)
   10. Cylinders and hoses: not leaking after above checks
   11. No unusual sounds
   12. Permit only qualified people to service and maintain forklift trucks.

Use

A. Forklift Operation - No one must ride or operate a forklift truck except for a trained forklift operator who is able to maintain control of the forklift and operate it smoothly when stopping, starting, lifting and tilting. The following pages list some important guidelines on forklift safety.

B. Traveling - Keep your hands, arms, head, feet and legs inside the forklift truck. Travel with forks as low as possible from the floor and tilted back. Obey posted traffic signs. Decrease speed at all corners, sound horn, and watch the swing of both the rear of the lift truck and the load. Avoid sudden stops. If the load blocks your vision, travel slowly in reverse. Always look in the direction of travel. Keep an eye out for oil spots, wet spots, loose objects, holes, rough surfaces, people, and vehicles on the floor or roadway.

To ensure the safety of others, know the blind spots of the lift truck with and without a load. When anyone crosses the route being traveled, stop the forklift truck. Lower the load to the floor and wait until passage is clear.

C. Traveling on an Incline - Keep the forks pointed downhill without a load and pointed uphill with a load. Do not attempt to turn the lift truck until it is on level ground.

D. Steering - Support the load by the front wheels and turn with the rear wheels. Do not turn the steering wheel sharply when traveling fast. If the lift truck is overloaded, steering will be difficult. Do not exceed load limits, and do not add a counterweight as an attempt to improve steering.

E. Loading - It is important to know the recommended load limit of the forklift (shown on the data plate) and the capacity of the fork, and to never exceed these limits. Position

the load according to the recommended load center. Do not add extra weight to counterbalance an overload. Keep the load close to the front wheels to keep the lift truck stable. When inserting the fork, keep the mast of the forklift in an upright position before inserting the fork into a pallet. Level the fork before inserting it.

F. Raising the Load - Do not raise or lower the fork unless the lift truck is stopped and braked. Avoid lifting a load that extends above the load backrest if there's any risk of the load, or part of it, sliding back toward the operator. Check for adequate overhead clearance before raising a load and maintain a safe working distance from overhead power lines. Lift the load straight up, and then tilt back slightly. Watch that the load does not catch on adjacent loads or obstructions. Do not back up until the forks are free. When a load is raised, the lift truck is less stable. The operator must stay on the forklift when the load is in a raised position. Do not allow anyone to stand or walk under the elevated part of the forklift, whether it has loaded or unloaded.

G. Handling Pallets - Ensure that forks are level and high enough to go into the pallet, and that they go all the way under the load. Forks must be the proper width to provide even weight distribution. Avoid trying to move or adjust any part of the load, the forklift, or the surroundings when on the forklift. Do not use pallets elevated by forklifts as an improvised working platform.

H. Parking - Park only in an approved location. When leaving the lift truck unattended, secure it by setting the brakes, lowering the forks or load to the floor, neutralizing the controls, and turning off the motor switch. Disconnect the battery or go through propane shutdown procedures.

I. Loading or Unloading Straight Trucks, Tractor Trailers, and Railway Cars

1. Preparing the vehicle being loaded or unloaded - Set the vehicle's brakes and chock the wheels. Install fixed jacks to support a semi-trailer that is not coupled to a tractor to prevent it from upending. Post signs warning people not to move a vehicle. Check that the height of the vehicle's entrance door clears the forklift height by at least 2 in. Make sure floors can support the combined weight of the forklift and the load. Inspect the vehicle's interior for trash, loose objects and obstructions, holes in the floor, and poor lighting. Install non-slip material in any area that could be a slipping hazard. Ensure that docks and dock plates are clear of obstructions and not oily or wet.

2. Loading or unloading the vehicle - Stay clear of edges of docks, rail cars, or ramps. Have edges clearly marked. Do not tow or push railway cars or trucks with a forklift. Do not operate forklifts inside vehicles for long periods without ventilation. Make sure that the dock plate is properly secured and can support the load (load weight should be clearly marked). Drive carefully and slowly over the plate. Do not spin the wheels.

J. Entering an Elevator with a Forklift Truck - Do not enter any elevator unless specifically authorized to do so. Before entering, ensure that the forklift plus load weight does not exceed the elevator capacity. Approach the elevator slowly. Stop at a safe distance from the elevator gate, and then enter squarely. Neutralize the forklift controls. Shut off the motor and apply the brakes. When working on or near a forklift, stay alert and prepare for the unexpected. Immediately report any collisions, damage, or near misses to a supervisor.

# RIGGING AND CRANES

a) Always know the weight of the load.
b) Rigging equipment must be inspected prior to, and after, each use.
c) Defective rigging shall be tagged and removed from the site.
d) Remove rigging equipment from the work area when not in use.
e) Use a sling rated for the capacity of the load.
f) Use the proper hitch configuration.
g) Lifting hooks shall have safety latches.
h) Tag lines should be used when practical and must always be used when lifting near scaffolding.
i) Select the longest sling possible to reduce the tension in the sling legs when using multiple load slings.
j) Pad or protect the sling from sharp corners.
k) Center the load in the base (bowl) of the hook to prevent hook point loading.
l) Do not allow kinks, loops, or twists in the legs.
m) Stand clean and keep hands and fingers free of the sling and the load.
n) Lift slowly to avoid shock loading of the sling.
o) Do not pull a sling from under a load when the load is resting on the sling. Block the load up then remove the sling.
p) Do not shorten a sling by knotting, by wire rope clips, or any other means.
q) Do not inspect a wire sling by passing bare hands over the body. Broken wires, if present, may puncture the hands.
r) Keep wire slings well lubricated in order to prevent corrosion.
s) Cranes may only be operated by certified/qualified operators.
t) A signal person must be used when the operator's view is obstructed.
u) The crane operator may refuse to lift a load if there is a safety concern.
v) Written approval from the manufacturer (or a Professional Engineer) must be obtained before modifying equipment if the changes may impact safe operation.
w) Mark/barricade the area within the crane's swing radius.
x) Crane operation procedures (operator’s manual) must be readily available, in the cab at all times. Manufacturer instructions/procedures (operator's manual) must be followed.
y) All crane safety devices must be in proper working order before operation.
z) Operator is to inspect crane and related equipment before use. Operator is to document daily and monthly equipment inspection.
aa) A pre-operation hazard assessment must be performed to identify the work zone.
bb) If any part of the crane or load may come within 20 feet of a power line, a means must be established to mark or safely block the swing radius.
cc) A competent/qualified person must direct the assembly and/or disassembly of equipment and must follow the manufacturer's specifications/instructions followed during assembly and/or disassembly.
dd) Cranes must be placed on stable ground and be adequately supported through cribbing, pads, etc. as required.

# EXCAVATIONS
**1926, Subpart P**
**Table of Contents**

# Excavation Safety Program

## OBJECTIVE

This Excavation Safety Program has been developed to protect employees from safety hazards that may be encountered during work in trenches and excavations. This program is intended to assure that:

A. Employees who perform work in excavations are aware of their responsibilities and know how to perform the work safely.

B. Ziolkowski Construction, Inc. has appointed one or more individuals within the company to assure compliance with the requirements of this program.

C. The responsibilities of competent persons and workers are clearly detailed.

D. All persons involved in excavation and trenching work have received appropriate training in the safe work practices that must be followed when performing this type of work.

## 1. ASSIGNMENT OF RESPONSIBILITY

A. Employer

In administering the Excavation Safety Program, Ziolkowski Construction, Inc. will:

- Monitor the overall effectiveness of the program.
- Provide atmospheric testing and equipment selection as needed.
- Provide personal protective equipment as needed.
- Provide protective systems as needed.
- Provide training to affected employees and supervisors.
- Provide technical assistance as needed.
- Preview and update the program on at least an annual basis, or as needed.

B. Program Manager

The Safety Director acts as the competent person for Ziolkowski Construction, Inc. in reference to this program, and must assure that:

- The procedures described in this program are followed.
- Employees entering excavations or trenches are properly trained and equipped to perform their duties safely.
- All required inspections, tests, and recordkeeping functions have been performed.

C. Employees

All employees, including contractor personnel, who work in or around excavations, must comply with the requirements of this program. Employees are responsible for reporting hazardous practices or situations to Ziolkowski Construction, Inc. management, as well as reporting incidents that cause injury to themselves or other employees to Safety Director.

## 2. TRAINING

A. Training Schedule

- All personnel involved in trenching or excavation work shall be trained in the requirements of this program by Safety Director with assistance from the appropriate supervisors.
- Training shall be performed before employees are assigned duties in excavations.
- Retraining will be performed when work site inspections indicate that an employee does not have the necessary knowledge or skills to safely work in or around excavations, or when changes to this program are made.
- Training records will be maintained by Safety Director, and shall include.: date of training, name of instructor(s), written material presented, and names of employee(s) trained.

A. Training Components

The training provided to all personnel who perform work in excavations shall include:

- The work practices that must be followed during excavating or working in excavations.
- The use of personal protective equipment that will typically be required during work in excavations, including but not limited to safety shoes, hardhats, and fall protection devices.

- Procedures to be followed if a hazardous atmosphere exists or could reasonably be expected to develop during work in an excavation.

- The OSHA Excavation Standard, 29 CFR 1926, Subpart P.

- Emergency and non-entry rescue methods, and the procedure for calling rescue services.

B. Training and Duties of Program Manager

The Program Manager shall receive the training detailed in this program as well as training on the requirements detailed in the OSHA Excavation Standard. The Program Manager shall:

- Coordinate actively participate in and document the training of all employees affected by this program.

- Ensure on a daily basis or more often as detailed in this program, that worksite conditions are safe for employees to work in excavations.

- Determine the means of protection that will be used for each excavation project.

- Ensure, if required, that the design of a protective system has been completed and approved by a registered professional engineer before work begins in an excavation.

- Make available a copy of this program and the OSHA Excavation Standard to any employee who requests it.

## 3. EXCAVATION REQUIREMENTS

a. Utilities and Pre-Work Site Inspection

- Prior to excavation, the site shall be thoroughly inspected by Safety Director to determine if special safety measures must be taken.

b. Surface Encumbrances

- All equipment, materials, supplies, permanent installations (i.e., buildings or roadways), trees, brush, boulders, and other objects at the surface that could present a hazard to employees working in the excavation shall be removed or supported as necessary to protect employees.

c. Underground Installations

- The location of sewer, telephone, fuel, electric, water, or any other underground installations or wires that may be encountered during excavation work shall be determined and marked prior to opening an excavation. Arrangements shall be made as necessary by the project manager with the appropriate utility entity for the protection, removal, shutdown, or relocation of underground installations.

- If it is not possible to establish the exact location of these installations, the work may proceed with caution if detection equipment or other safe and acceptable means are used to locate the utility.

- Excavation shall be done in a manner that does not endanger the underground installations or the employees engaged in the work. Utilities left in place shall be protected by barricades, shoring, suspension, or other means as necessary to protect employees.

d. Protection of the Public

- Barricades, walkways, lighting, and posting shall be provided as necessary for the protection of the public prior to the start of excavation operations.

- Guardrails, fences, or barricades shall be provided on excavations adjacent to walkways, driveways, and other pedestrian or vehicle thoroughfares. Warning lights or other illumination shall be maintained as necessary for the safety of the public and employees from sunset to sunrise.

- Wells, holes, pits, shafts, and all similar hazardous excavations shall be effectively barricaded or covered and posted as necessary to prevent unauthorized access. All temporary excavations of this type shall be backfilled as soon as possible.

- Walkways or bridges protected by standard guardrails shall be provided where employees and the general public are permitted to cross over excavations. Where workers in the excavation may pass under these walkways or bridges, a standard guardrail and toe-board shall be used to prevent the hazard of falling objects. Information on the requirements for guardrails and toe-boards may be obtained by contacting Safety Director.

e. Protection of Employees

Stairs, ladders, or ramps shall be provided at excavation sites where employees are required to enter trench excavations over four (4) feet deep. The maximum

distance of lateral travel (along the length of the trench) necessary to reach the means of egress shall not exceed 25 feet.

- Structural Ramps

    1. Structural ramps used solely by employees as a means of access or egress from excavations shall be designed by a competent person. Structural ramps used for access or egress of equipment shall be designed by a person qualified in structural design and shall be constructed in accordance with the design.

    2. Ramps and runways constructed of two or more structural members shall have the structural members connected, together to prevent movement or displacement.

    3. Structural members used for ramps and runways shall be of uniform thickness.

    4. Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.

    5. Structural ramps used in place of steps shall be provided with cleats or other surface treatments on the top surface to prevent slipping.

- Ladders

    1. When portable ladders are used, the ladder side rails shall extend a minimum of three (3) feet above the upper surface of the excavation.

    2. Ladders and their use shall comply with our Ladder program.

    3. Employees are not permitted to carry any object or load while on a ladder that could cause them to lose their balance and fall.

f. Exposure to Vehicular Traffic

- Employees exposed to vehicular traffic shall be provided with and shall wear warning vests or other suitable garments marked with or made of reflectorized or high-visibility material. Warning vests worn by flagmen shall be red or orange and shall be reflectorized material if worn during night work. Emergency lighting, such as spotlights or portable lights, shall be provided as needed to perform work safely.

g. Exposure to Falling Loads

- No employee is permitted underneath loads being handled by lifting or digging equipment. Employees are required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles provide adequate protection for the operator during loading and unloading operations.

h. Warning System for Mobile Equipment

- A warning system shall be used when mobile equipment is operated adjacent to the edge of an excavation if the operator does not have a clear and direct view of the edge of the excavation. The warning system shall consist of barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

i. Hazardous Atmospheres

- The competent person will test the atmosphere in excavations over four (4) feet deep if a hazardous atmosphere exists or could reasonably be expected to exist. A hazardous atmosphere could be expected, for example, in excavations in landfill areas, areas where hazardous substances are stored nearby, or near areas containing gas pipelines.

- Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or forced ventilation of the workspace.

- Forced ventilation or other effective means shall be used to prevent employee exposure to an atmosphere containing a flammable gas in excess of ten (10) percent of the lower flammability limit of the gas.

- When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, continuous air monitoring will be performed by the competent person. The device used for atmospheric monitoring shall be equipped with an audible and visual alarm.

- Atmospheric testing will be performed using a properly calibrated direct reading gas monitor. Direct reading gas detector tubes or other acceptable means may also be used to test potentially toxic atmospheres.

- Each atmospheric testing instrument shall be calibrated on a schedule and in the manner recommended by the manufacturer.

- Each atmospheric testing instrument will be field checked immediately prior to use to ensure that it is operating properly.

j. Personal Protective Equipment

- All employees working in trenches or excavations shall wear approved hardhats and sturdy work boots.

- Employees exposed to flying fragments, dust or other materials produced by drilling, sawing, sanding, grinding, and similar operations shall wear approved safety glasses with side shields.

- Employees performing welding, cutting, or brazing operations, or are exposed to the hazards produced by these tasks, shall wear approved spectacles or a welding face shield or helmet.

- Employees entering bell-bottom pier holes or other similar deep and confined footing excavations shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.

- Employees shall wear approved gloves or other suitable hand protection.

- Employees using or working in the immediate vicinity of hammer drills, masonry saws, jackhammers, or similar high-noise producing equipment shall wear suitable hearing protection.

- Each employee working at the edge of an excavation six (6) feet or more, deep shall be protected from falling. Fall protection shall include guardrail systems, fences, barricades, covers, or a tie-back system meeting OSHA requirements.

- Emergency rescue equipment, such as breathing apparatus, a safety harness and line, and a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may develop during work in an excavation. This equipment shall be attended when in use. Only personnel who have received approved training and have appropriate equipment shall attempt retrieval that would require entry into a hazardous atmosphere. If entry into a known hazardous atmosphere must be performed, then the Safety Director shall be given advance notice so that the hazards can be evaluated, and rescue personnel placed on standby if necessary.

k. Walkways and Guardrails

- Walkways shall be provided where employees or equipment are permitted to cross over excavations. Guardrails shall be provided where walkways, accessible only to on-site project personnel, are six (6) feet or more above lower levels.

l. Protection from Water Accumulation Hazards

- Employees are not permitted to work in excavations that contain or are accumulating water unless precautions have been taken to protect them from the hazards posed by water accumulation. Precautions may include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of safety harnesses and lifelines.

  If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operation shall be monitored by a person trained in the use of that equipment.

  If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation. Precautions shall also be taken to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains shall be re-inspected by the competent person after each rain incident to determine if additional precautions, such as special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of safety harnesses and lifelines, should be used.

  The competent person shall inform affected workers of the precautions or procedures that are to be followed if water accumulates or is accumulating in an excavation.

m. Stability of Adjacent Structures

- The competent person will determine if the excavation work could affect the stability of adjoining buildings, walls, sidewalks, or other structures.

- Support systems (such as shoring, bracing, or underpinning) shall be used to assure the stability of structures and the protection of employees where excavation operations could affect the stability of adjoining buildings, walls, or other structures.

- Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted, except when:

1. a support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure;
2. the excavation is in stable rock;
3. a registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity; or
4. a registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.

- Sidewalks, pavements, and appurtenant structures shall not be undermined unless a support system or other method of protection is provided to protect employees from the possible collapse of such structures.

- Where review or approval of a support system by a registered professional engineer is required, the project manager shall secure this review and approval in writing before the work begins.

n. Protection from Falling Objects and Loose Rocks or Soil

- Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of:

1. scaling to remove loose material;
2. installation of protective barricades, such as wire mesh or timber, at appropriate intervals on the face of the slope to stop and contain falling material; or
3. benching sufficient to contain falling material.

Excavation personnel shall not be permitted to work above one another where the danger of falling rock or earth exists.

Employees shall be protected from excavated materials, equipment, or other materials that could pose a hazard by falling or rolling into excavations.

Protection shall be provided by keeping such materials or equipment at least two (2) feet from the edge of excavations, by use of restraining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

Materials and equipment may, as determined by the competent person, need to be stored further than two (2) feet from the edge of the excavation if a hazardous loading condition is created on the face of the excavation.

Materials piled, grouped, or stacked near the edge of an excavation must be stable and self-supporting.

o. Inspection by Competent Person

- The competent person shall conduct daily inspections of excavations, adjacent areas, and protective systems for evidence of a situation that could result in possible cave-ins, failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when the trench will be or is occupied by employees.

  Where the competent person finds evidence of a situation that could result in a possible cave-in, failure of protective systems, hazardous atmosphere, or other hazardous conditions, exposed employees shall be removed from the hazardous area until precautions have been taken to assure their safety.

  The competent person shall maintain a written log of all inspections conducted. This log shall include the date, work site location, results of the inspection, and a summary of any action taken to correct existing hazards.

## 4. PROTECTIVE SYSTEM REQUIREMENTS

a. Protection of Employees

Employees in an excavation shall be protected from cave-ins by using either an adequate sloping and benching system or an adequate support or protective system. The only exceptions are:

1. excavations made entirely in stable rock; or
2. excavations less than five (5) feet in depth where examination of the ground by the competent person provides no indication of a potential cave-in.

Protective systems shall be capable of resisting all loads that could reasonably be expected to be applied to the system.

b. Design of Sloping and Benching Systems

The slope and configuration of sloping and benching systems shall be selected and constructed by a qualified person in accordance with the following options:

- Allowable configurations and slopes

1. Excavations shall be sloped at an angle no steeper than one and one-half (1 ½) horizontal to one (1) vertical (34 degrees measured from the horizontal), unless one of the options listed below is used.
2. Slopes shall be properly excavated depending on soil type as shown in 29 CFR 1926, Subpart P, Appendix B.

Determination of slopes and configurations using 29 CFR 1926, Subpart P, Appendices A and B

The maximum allowable slopes and allowable configurations for sloping and benching systems shall meet the requirements set forth in these appendices.

Designs using other tabulated data

- The design of sloping or benching systems may be selected from, and shall be constructed in accordance with, other tabulated data, such as tables and charts. The tabulated data used must be in written form and include the following:

    3. Identification of the factors that affect the selection of a sloping or benching system.

    4. Identification of the limits of the use of the data, including the maximum height and angle of the slopes determined to be safe.

    5. Other information needed by the user to make correct selection of a protective system.

    6. At least one copy of the tabulated data that identifies the registered professional engineer who approved the data shall be maintained at the jobsite during construction of the protective system. After that time, the data may be stored off the jobsite, and shall be maintained by the project manager.

Design by a registered professional engineer

    7. Sloping or benching systems designed in a manner other than those described in the preceding three options shall be approved by a registered professional engineer.

    8. Designs shall be in written form and shall include at least the following information:

        a. the maximum height and angle of the slopes that were determined to be safe for a particular project; and

b. the identity of the registered professional engineers who approved the design.

9. At least one copy of the design shall be maintained at the jobsite while the slope is being constructed. After that time, the design may be stored off the jobsite, and shall be maintained by the project manager.

c. Design of Support, Shield, and Other Protective Systems

The design of support systems, shield systems, and other protective systems shall be selected and constructed by a qualified person in accordance with the following requirements:

- Designs using 29 CFR 1926, Subpart P, Appendices A, C and D

1. Timber shoring in trenches shall be designed in accordance with the requirements of the OSHA guidelines.

2. Aluminum hydraulic shoring shall be designed in accordance with the manufacturer's tabulated data or the requirements of the OSHA guidelines.

- Designs using manufacturer's tabulated data

1. Support systems, shield systems, and other protective systems designed from manufacturer's tabulated data shall be constructed and used in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.

2. Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer shall be allowed only after the manufacturer issues specific written approval.

3. Manufacturer's specifications, recommendations, and limitations, as well as the manufacturer's written approval to deviate from the

Specifications, recommendations, and limitations shall be kept in written form at the jobsite during construction of the protective system(s). After that time, the information may be stored off the jobsite, and shall be maintained by the project manager.

- Designs using other tabulated data

Designs of support systems, shield systems, and other protective systems shall be selected from and constructed in accordance with tabulated data, such as tables and charts.

1. The tabulated data shall be in written form and shall include all of the following:

    a. identification of the factors that affect the selection of a protective system drawn from such data;
    b. identification of the limits of the use of such data; and
    c. information needed by the user to make a correct selection of a protective system from the data.

2. At least one written copy of the tabulated data, which identifies the registered professional engineer who approved the data, shall be maintained at the jobsite during construction of the protective system. After that time, the data may be stored off the jobsite, and shall be maintained by the project manager.

- Design by a registered professional engineer

  Support systems, shield systems, and other protective systems designed in a manner other than the preceding three options shall be approved by a registered professional engineer.

  1. Designs shall be in written form and shall include:

      a. a plan indicating the sizes, types, and configurations of the materials to be used in the protective system; and
      b. the identity of the registered professional engineer who approved the design.

  2. At least one copy of the design shall be maintained at the jobsite during construction of the protective system. After that time, the design may be stored off the jobsite, and shall be maintained by the project manager.

d. Materials and Equipment

- Materials and equipment used for protective systems shall be free from damage or defects that might affect their proper function.

- Manufactured materials and equipment used for protective systems shall be used and maintained in accordance with the recommendations of the manufacturer, and in a manner that will prevent employee exposure to hazards.

- When materials or equipment used for protective systems are damaged, the competent person shall ensure that these systems are examined by a qualified person to evaluate suitability for continued use. If the competent person cannot assure that the material or equipment is able to support the intended loads or is otherwise suitable for safe use, then such material or equipment shall be removed from service. The material or equipment shall then be evaluated and approved by a registered professional engineer before being returned to service.

e. Installation and Removal of Supports

General

1. Members of support systems shall be securely connected together to prevent sliding, falling, kickouts, or other potential hazards.

2. Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support systems.

3. Individual members of the support systems shall not be subjected to loads exceeding those that they were designed to support.

4. Before temporary removal of individual support members begins, additional precautions shall be taken as directed by the competent person to ensure the safety of employees (i.e., the installation of other structural members to carry the loads imposed on the support system).

5. Removal of support systems shall begin at, and progress from, the bottom of the excavation. Members shall be released slowly. If there is any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation, the work shall be halted until it can be examined by the competent person.

6. Backfilling shall progress in conjunction with the removal of support systems from excavations.

Additional Requirements

1. Excavation of material to a level no greater than two (2) feet below the bottom of the members of a support system is allowed, but only if the system is designed to resist the forces calculated for the full depth of the trench. There shall be no indications of a possible loss of soil

from behind or below the bottom of the support system while the trench is open.

2. Installation of a support system shall be closely coordinated with the excavation of trenches.

f. Sloping and Benching Systems

Employees are not permitted to work above other employees in the faces of sloped or benched systems, except when employees at lower levels are protected from the hazards of falling, rolling, or sliding material or equipment.

g. Shield Systems

General

1. Shield systems shall not be subjected to loads that are greater than those they are designed to withstand.

2. Shields shall be installed in a manner that will restrict lateral or other hazardous movement of the shield and could occur during cave-in or unexpected soil movement.

3. Employees shall be protected from the hazard of cave-ins when entering or exiting the areas protected by shields.

4. Employees are not permitted in trenches when shields are being installed, removed, or moved vertically.

h. Additional Requirements

1. Excavation of material to a level no greater than two (2) feet below the bottom of the shield system is allowed, but only if the system is designed to resist the forces calculated for the full depth of the trench.

2. There shall be no indications of a possible loss of soil from behind or below the bottom of the shield system while the trench is open.

## 5. ACCIDENT INVESTIGATIONS

All incidents that result in injury to workers, as well as near misses, regardless of their nature, shall be reported and investigated. Investigations shall be conducted by Safety Director as soon after an incident as possible to identify the cause and means of prevention to eliminate the risk of reoccurrence.

In the event of such an incident, the Excavation Safety Program shall be reevaluated by the Safety Director to determine if additional practices, procedures, or training are necessary to prevent similar future incidents.

## 6. CHANGES TO PROGRAM

Any changes to the Excavation Safety Program shall be approved by Safety Director and shall be reviewed by a qualified person as the job progresses to determine additional practices, procedures, or training needs necessary to prevent injuries. Affected employees shall be notified of procedure changes and trained if necessary. A copy of this program shall be maintained at the jobsite by Safety Director.

## 7. GLOSSARY

**Accepted Engineering Practices**: The standards of practice required by a registered professional engineer.

**Aluminum Hydraulic Shoring**: A manufactured shoring system consisting of aluminum hydraulic cylinders (cross-braces) used with vertical rails (uprights) or horizontal rails (wales). This system is designed to support the sidewalls of an excavation and prevent cave-ins.

**Bell-Bottom Pier Hole**: A type of shaft or footing excavation, the bottom of which is made larger than the cross section above to form a bell shape.

**Benching system**: A method of protecting employees from cave-ins by excavating the sides of an excavation to form one or more horizontal steps, usually with vertical or near-vertical surfaces between levels.

**Cave-in**: The movement of soil or rock into an excavation, or the loss of soil from under a trench shield or support system, in amounts large enough to trap, bury, or injure and immobilize a person.

**Competent Person**: A person who has been trained to identify hazards in the workplace, or working conditions that are unsafe for employees, and who has the authority to have these hazards corrected.

**Cross Braces**: The horizontal members of a shoring system installed from side to side of the excavation. The cross braces bear against either uprights or wales.

**Excavation**: Any man-made cut, cavity, trench, or depression in an earth surface formed by earth removal.

**Faces or Sides**: The vertical or inclined earth surfaces formed as a result of excavation work.

**Failure**: The movement or damage of a structural member or connection that makes it unable to support loads.

**Hazardous Atmosphere**: An atmosphere that is explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, that may cause death, illness, or injury.

**Kickout**: The accidental movement or failure of a cross brace.

**Program Manager**: the individual within the company who oversees excavation work and is responsible for assuring compliance with this program.

**Protective System**: A method of protecting employees from cave-ins, from material that could fall or roll from an excavation face into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.

**Ramp**: An inclined walking or working surface that is used to gain access to one point from another. A ramp may be constructed from earth or from structural materials such as steel or wood.

**Sheeting**: The members of a shoring system that retain the earth in position and in turn are supported by other members of the shoring system.

**Shield System**: A structure used in an excavation to withstand cave-ins and which will protect employees working within the shield system. Shields can be permanent structures or portable units moved along as work progresses. Shields used in trenches are usually referred to as **trench boxes** or **trench shields**.

**Shoring System**: A structure that is built or put in place to support the sides of an excavation to prevent cave-ins.

**Sides**: See **faces**.

**Sloping System**: Sloping the sides of an excavation away from the excavation to protect employees from cave-ins. The required slope will vary with soil type, weather, and surface or near surface loads that may affect the soil in the area of the trench (such as adjacent buildings, vehicles near the edge of the trench, etc.).

**Stable Rock**: Natural solid mineral material that can be excavated with vertical sides that will remain intact while exposed.

**Structural Ramp**: A ramp built of steel or wood, usually used for vehicle access. Ramps made of soil or rock are not considered structural ramps.

**Support System**: A structure used as underpinning, bracing or shoring, which provides support to an adjacent structure, underground installation, or the sides of an excavation.

**Tabulated Data**: Tables and charts approved by a registered professional engineer and used to design and construct a protective system.

**Trench**: A narrow excavation (in relation to its height) made below the surface of the ground.

**Trench Box or Trench Shield**: See **shield**.

**Uprights**: The vertical members of a trench shoring system placed in contact with the earth and usually positioned so the individual members do not contact each other. Uprights placed so that individual members are closely spaced, in contact with or interconnected to each other, are often called **sheeting**.

**Wales**: Horizontal members of a shoring system placed in the direction of the excavation face whose sides bear against the vertical members of the shoring system or earth (the uprights or sheeting).

# MASONRY AND CONCRETE CONSTRUCTION

Masonry and concrete construction shall conform to OSHA 1926 Subpart Q.

a) All projects are Hard Hat projects.
b) Limited Access Zones shall be established whenever a freestanding masonry wall is being constructed. The limited access zone shall be established at the beginning of wall construction and be equal to the height of the wall plus four feet. It shall run the entire length of the wall. The LAZ remains in place until the wall is adequately supported to prevent overturning or collapse.
c) All masonry walls over eight feet in height shall be evaluated as to the necessity and design of temporary bracing. OSHA regulations and accepted industry practices, such as those published by the Mason Contractor's Association of America shall be used.
d) Working on scaffolds is a necessary part of our work. Most serious injuries associated with our work results from improper building and maintaining of scaffolding. All scaffolds should be inspected for defects in material, loose parts, connections, and proper erection. Make sure all guards are in place.

# ELECTRICAL SAFETY & GFCI PROGRAM

1) Ziolkowski Construction, Inc. is using the Ground Fault Interrupter Program on all construction sites and trains employees in electrical safety. Only safe work practice shall be used to avoid electric shock.

2) Electrical work must be performed by a qualified person.

3) When working near overhead lines or near energized equipment, a minimum clearance distance of 10' shall be maintained or the lines will be de-energized and grounded. Consult with a qualified electrical representative and/or the electrical guidance provided in the OSHA regulations for the particular work practice in question.

4) All portable electric hand tools used in construction and maintenance work, unless self-contained, shall meet one or more of the following requirements.

    a. Be equipped with 3-wire cord having the ground wire permanently connected to the tool frame and a means for grounding at the other end.

    b. Be of the double insulated type, having the tool housing separately insulated from, and in addition to, the insulation of the electrical component of the tool. Such tool must bear the Underwriters' Laboratory label "Double Insulated" permanently on the tool.

    c. Be connected to the power supply by means of a fully insulated isolating transformer, or other isolated power supply.

    d. Be connected to a power supply fully protected by ground fault circuit interrupters.

5) Electric tool cords or extension cords shall not be used for hoisting or lowering tools.

6) Extension cords shall be maintained in safe condition. Worn or frayed cords and broken plugs shall be promptly replaced. Extension cords with exposed metal sockets shall not be used.

7) When working in boilers, steam generators, condensers, tanks, pressure vessels, circuit breakers or in damp or grounded areas, extension light cords shall conform to 2(a) or 2(c.) For lighting large areas, such as boiler furnaces, 120-volt lighting may be used provided all lamps and wires are in place before the circuit is energized and not contacted until the circuit is disconnected from the power source.

8) All ground fault boxes shall be used at the power source with no exceptions.

9) All exposed de-energized electrical parts shall be treated as live when working on or around the equipment.

10) Only qualified persons may work around exposed energized parts. Adequate illumination must be in place prior to entering work area.

11) Qualified employees must use OSHA 1910.333 Table S-5 for minimum approach distances.

12) When necessary insulated shields/barriers shall be installed on electrical lines by qualified personnel.

13) Vehicles and/or mechanical equipment must maintain a clearance distance of 10 feet (or greater) from energized overhead lines.

14) Conductive apparel shall not be worn when working near electrical equipment unless it is rendered non-conductive by covering, wrapping or other insulating means.

# LOCKOUT / TAGOUT PROGRAM

## PURPOSE

The purpose of this program is to establish lockout/tagout procedures to prevent the unintended release of any power source listed below, causing injury to an employee.

## RESPONSIBILITY

It will be the individual job supervisors that shall be responsible for the establishment and implementation of this program for each jobsite.

## HAZARDOUS ENERGY SOURCES

The following are examples of hazardous energy sources that would require lockout / tagout precautions:

a) Electricity
b) Hydraulic
c) Gas
d) Springs
e) Chemical lines
f) Pneumatic (air)
g) Elevated-machine members
h) Mechanical work
i) Water pressure
j) Steam lines

Each hazardous energy source should be reviewed, and methods devised to control unintended operation of machines or equipment being serviced or maintained. (Affixing appropriate lockout or tagout devices, and to otherwise disable machines or equipment to prevent unexpected energization, start-up or release of stored energy in order to prevent injury to employees. This may also include blocking of movable parts, which may create a hazard.)

## ENERGY CONTROL DEVICES

The following are sources of protecting materials and devices:

a) Locks
b) Chains
c) Key Blocks
d) Tags
e) Self-locking fasteners
f) Wedges
g) Adapter pins
h) Lockable mechanical covers

All lockout / tagout devices shall be identified and used only for the purpose they are intended.

a) Durable lockout/tagout devices shall be capable of withstanding the environment in which they are used.
b) Tags shall be capable of withstanding weather, damp locations, and corrosive environments.
c) Locks and/or tags shall identify the individual applying the device.

All lockout / tagout devices shall be uniform in color, shape or size.

Lockout devices shall only be removed by the person who installed them.

Lockout devices shall be substantial enough to prevent inadvertent or accidental removal and shall indicate the identity of the employee using the device and a warning of what precautions to take.

Lockout procedures shall be used in preference to tagout procedures where possible.

**EXAMPLE OF A MACHINE SHUTDOWN PROCEDURE**

**Step 1:** Identify energy sources and shut off energy to the affected equipment. (Use normal stopping or running procedures for the machine.)
**Step 2:** Notify others – In particular, all affected employees.
**Step 3:** Shutdown the equipment, using normal stopping procedures for the machine.
**Step 4:** Isolate the equipment from the energy source.
**Step 5:** Lockout / tagout the equipment by affixing locks and tags to each energy source controlling device.
**Step 6:** Release any stored energy from capacitor banks, springs, compressed air, steam, hydraulics, etc.
**Step 7:** Verify isolation of energy has occurred by trying equipment.
**Step 8:** Perform servicing.
**Step 9:** Release the equipment from lockout / tagout.

## PERIODIC INSPECTIONS

A periodic inspection of the energy control procedures shall be conducted annually.

The periodic inspection shall be performed by an authorized employee other than the one(s) utilizing the energy control procedure being inspected.

The periodic inspection shall be designed to correct any deviations or inadequacies observed.

Where lockout is used for energy control, the periodic inspections shall include a review, between the inspector and each authorized employee, of that employee's responsibilities under the energy control procedure being inspected.

## TRAINING

Each affected employee shall be instructed in the purpose and use of the lockout/tagout procedure.

All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

## TAGGING LIMITATIONS

a) Tags do not afford the same protection as a lock. **NEVER ASSUME YOU ARE PROTECTED UNLESS YOU ARE LOCKED OUT!**
b) Tags are not to be removed without the authorization of the installer.
c) Tags must be legible and be made familiar to all employees whose work is affected or may be in the affected areas.
d) Tags and means of attachment must be capable of withstanding environmental conditions in the workplace.
e) Tagout devices shall be non-reusable and self-locking with a minimum unlocking strength of no less than 50 pounds.
f) Tags often evoke a false sense of security and their importance needs to be clearly understood by all employees.

A record of employee training including employee name and date of training should be kept.

## RETRAINING

Retraining should be established under the following conditions:

a) There is a change in job assignments
b) A change in machines or equipment.
c) Equipment or processes present a new hazard.
d) A change in the energy control procedures.
e) There are deviations or inadequacies detected in the procedures.
f) New or revised control methods are used.

A record of employee retraining including employee name and date of retraining should be kept when any of the above is present.

## CONTROL

Elements and actions

a) All employees should be aware of the type and magnitude of hazardous energy.
b) All affected employees shall be informed of the location of the lockout/tagout equipment.

Lockout / Tagout of energy isolating devices

a) Only trained and authorized employees shall use the lockout/tagout devices.
b) Devices are to be affixed in such a manner that it will hold the energy isolating device in a “safe” or “off” position.
c) Where tagout devices are used the energy, isolating device is to be fastened at the same point at which a lock would have been attached.
d) If a tag cannot be affixed directly to the energy isolating device, it should be located where it will be immediately obvious to potential operators.
e) Whenever major replacement, repair, renovation or modification of machines or equipment is performed and whenever new machines or equipment are installed, energy isolating devices shall be designed to accept a lockout device.

Stored energy

a) After lockout or tagout devices have been applied, stored energy or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe whenever possible.
b) If reaccumulation of stored energy to a hazardous level can take place, verification or isolation shall continue when service or maintenance is being performed until work is completed.
c) Prior to servicing or maintaining machines or equipment, employees must verify that energy isolation and de-energization of the machines or equipment have been accomplished.

## RELEASE FROM LOCKOUT OR TAGOUT

Before removing lockout or tagout devices from machines and equipment, authorized employees must take certain precautions:

a) Inspect the work area to ensure non-essential items have been removed.
b) Check the work area to see that all employees have been safely positioned or removed.
c) Before removing lockout or tagout devices, notify all affected employees.

Before lockout and tagout devices are removed and energy is restored, procedures shall be taken by authorized employees to ensure the following:

a) If the employee who applied the lockout or tagout device is unavailable, the device may only then be removed under the direction of management.
b) Management will verify that the employee who applied the device is not at the facility.
c) Management has made all reasonable efforts to contact the employee to inform them that their device has been removed.
d) Management will inform the employee the device has been removed before they return to work.

## OUTSIDE CONTRACTORS

Management and contractors will inform each other of their respective lockout or tagout procedures. Management will train all affected employees on restrictions and prohibitions of contractors' energy control procedures.

## GROUP LOCKOUT OR TAGOUT

When more than one employee performs servicing or maintenance of equipment or machinery, a procedure shall be utilized to afford each employee a level of protection equivalent to that provided by personal lockout or tagout.

Group requirements shall include but are not limited to the following:

a) Primary responsibility shall be vested in one authorized employee for a number of employees under a group program with one employee having an operations lock.
b) The authorized employee must ascertain the exposure level of individual group members.
c) If more than one group of employees is involved in a job-associated assignment, one authorized employee shall be designated to coordinate the affected workers.
d) Each involved employee shall affix a lockout or tagout device to the group lockout device when beginning work and remove it when work is completed on the machine or equipment being serviced or maintained.

## SHIFT OR PERSONNEL CHANGES

When a shift or personnel change occurs, a designated employee should ensure the continuity of lockout or tagout protection.

The designated employee shall provide for the orderly transfer of lockout or tagout devices between off-going and oncoming employees to minimize risk to employees from stored energy.

## EXCLUSIONS

Normal production operations including repetitive, routine minor adjustments and maintenance, which would be covered under OSHA's machine guarding standards.

Work on cord and plug connected electric equipment when it is unplugged, and the employee working on the equipment had complete control over the plug.

Hot tap operations involving gas, steam, water or petroleum products when the employer shows that continuity of service is essential, shutdown is impractical and documented procedures are followed to provide proven effective protection for employees.

# ASBESTOS PROGRAM

a) Asbestos is a naturally occurring mineral fiber. It was used in numerous building materials and vehicle products for its strength and ability to resist heat and corrosion before its dangerous health effects were discovered.

b) Individual asbestos fibers cannot be seen by the naked eye, which puts workers at an increased risk. The Occupational Safety and Health Administration (OSHA) has regulations to protect workers from the hazards of asbestos.

c) It is the policy of Ziolkowski Construction Inc. that any time an employee encounters suspected asbestos containing materials that all work stops in that area and an assessment is made to determine whether the material contains asbestos. Work may resume only after the material is determined to be non-asbestos containing or the area has been abated of asbestos containing materials.

d) Ziolkowski Construction Inc. has developed the following policy on Asbestos Awareness to ensure the safety of our employees and to comply with health safety and environmental regulations set out by the clients for which Ziolkowski Construction Inc. works.

**Implementation**

a) Training: Safety meeting, Awareness training.

b) PPE: Safety vests, coveralls, respirators, vented goggles, foot protection, face shields, gloves.

**Competent Person**

a) The Safety Director is the competent person responsible for the program.

**Training**

a) Training will be provided and documented by Ziolkowski Construction Inc. to all workers exposed at or above the PEL before work begins and yearly thereafter.

b) All training will be conducted in a manner and language in which the worker is able to understand.

c) Workers who perform housekeeping operations in buildings with presumed asbestos containing materials but not at the PEL will also be provided asbestos awareness training.

**Training Materials**

a) It is a requirement of Ziolkowski Construction Inc. that written materials relating to the employee training program must be readily available to affected employees,

b) The assistant Secretary of Labor for Occupational Safety and Health and

c) The director of the National Institute for Occupational Safety and Health.

**Asbestos Hazards/Health Effects**

a) Asbestos fibers are released into the air during activities that disturb asbestos-containing materials. The asbestos fibers can then be inhaled without knowing and trapped in the lungs.

b) If swallowed, they can become embedded into the digestive tract as well.

c) Asbestos is a known human carcinogen and can cause chronic lung disease as well as lung and other cancers.

d) Symptoms and/or cancer may take many years to develop following exposure.

e) The hazard may occur during:

   i. Manufacturing of asbestos-containing products,

   ii. Performing brake or clutch repairs,

   iii. Renovating or demolishing buildings or ships; or cleanup from those activities,

   iv. Contact with deteriorating asbestos containing materials and during cleanup after natural disasters. Some materials are presumed to contain asbestos if installed before 1981.

   v. Examples of these materials, as well as other presumed asbestos-containing materials are:

   vi. Thermal system insulation,

   vii. Roofing and siding shingles,

   viii. Vinyl floor tiles,

   ix. Plaster, cement, putties and caulk,

   x. Ceiling tiles and spray-on coatings,

   xi. Industrial pipe wrapping,

   xii. Heat-resistant textiles,

   xiii. Automobile brake linings and clutch pads.

**Permissible Exposure Limit (PEL)**

a) The PEL for asbestos is 0.1 fiber per cubic centimeter of air as an eight-hour time-weighted average (TWA), with an excursion limit (EL) of 1.0 asbestos fibers per cubic centimeter over a 30-minute period.

b) It is a requirement of Ziolkowski Construction Inc. that access is limited to regulated areas.

c) Ziolkowski Construction Inc. ensures that no one will be exposed above these limits.

d) Where the TWA and/or excursion limit is exceeded, a written program will be established and implemented to reduce employee exposure to or below the TWA and to or below the excursion limit.

**Assessments**

a) Assessment of workplaces covered by the standards will be completed to determine if asbestos is present and if the work will generate airborne fibers by a specific method under each standard.

b) The air quality (safety) is to be determined from breathing zone air samples.

c) The samples must be representative of the 8-hour TWA and 30-min. short-term exposure.

d) Measurements are required for documentation.

**Monitoring**

a) Monitoring necessary to detect if asbestos exposure is at or above the PEL or EL for workers who are or may be expected to be exposed to asbestos. Frequency depends on work classification and exposure.

b) For the construction and shipyard assessments and monitoring will be done by a competent person.

c) If the exposure has the potential to be above the PEL or EL, Ziolkowski Construction Inc. will use proper engineering controls and work practices to the extent feasible to keep it at or below the PEL and EL.

d) Where feasible engineering controls and work practices do not ensure worker protection at the exposure limits, Ziolkowski Construction Inc. will reduce the exposures to the lowest level achievable and then supplement with proper respiratory protection to meet the PEL.

e) The following will be used where feasible:

    i. Exhaust systems for hand tools, wet methods, clean-up procedures and PPE.

**Hazard Communication/Demarcation**

a) Proper hazard communication and demarcation with warning signs containing specified language in areas that have exposures above the PEL or EL is necessary.

b) No smoking, eating, or drinking should occur in these areas and proper PPE will be provided and used to prevent exposure.

c) Separate decontamination and lunch areas with proper hygiene practices will be provided to workers exposed above the PEL to avoid contamination.

**Medical Surveillance**

a) Medical surveillance will be provided for workers who engage in certain classifications of work, or experience exposures at or above the PEL in construction and shipyards. In general industry, medical examinations will be provided for workers who experience exposure at or above the PEL.

**Records**

a) Records will be kept on exposure monitoring for asbestos for at least 30 years, and worker medical surveillance records retained for the duration of employment plus 30 years. Training records will be kept for at least 1 year beyond the last date of employment.

**Sign & Labels**

a) The material present will be identified through signs and labels.

b) The signs and labels will notify of its location, and appropriate work practices which, if followed, will ensure that asbestos containing material will not be disturbed.

c) Employees who perform housekeeping activities during and after construction activities will be covered by this plan.

**Multi-Contractor Worksites**

a) Ziolkowski Construction Inc. will remove its employees working immediately adjacent to a Class I asbestos job if they could be exposed due to the inadequate containment of such job.

b) The employees must stay clear from the area until the enclosure breach is repaired or perform an initial exposure assessment.

**PPE**

a) It is a requirement of Ziolkowski Construction Inc. that PPE must include, but not limited to:

   i. Coveralls

   ii. Gloves

   iii. Head coverings

   iv. Foot coverings

   v. Face shields

   vi. Vented goggles

**Respirators**

a) It is a requirement of Ziolkowski Construction Inc. that respirators must be used in the following four circumstances:

   i. Work practice controls

   ii. Work operations

   iii. To reduce exposure

   iv. In emergencies

b) The respirator will be provided at no cost to the employees and will be chosen from those approved by NIOSH.

# LEAD AWARENESS

This program establishes minimum safety requirements to eliminate or minimize employee exposure to lead and other biological hazards.

## Scope:

This policy applies to all construction work where an employee may be occupationally exposed to lead. All construction work excluded from coverage in general industry standard for lead by 29 CFR 1910.1025(a)(2) is covered by this standard. Construction work is defined as work for construction, alteration, and/or repair, including painting and decorating. It includes but is not limited to the following:

a) Demolition or salvage of structures where lead or materials containing lead are present.
b) Removal or encapsulation of materials containing lead.
c) New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead.
d) Installation of products containing lead.
e) Lead contamination/ emergency clean up.
f) Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed.
g) Maintenance operations associated with the construction activities described in this paragraph.

## DEFINITIONS:

Definitions:

a) Substance pure lead (Pb) is a heavy metal at room temperature and pressure and is a basic chemical element.
b) Action level means employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (30ug/m3) calculated as an 8-hour time-weighted average (TWA.)
c) Permissible exposure limit (PEL). The employer shall assure that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air (50ug/m3) averaged over an 8-hour period. If an employee is exposed to lead for more than 8 hours in any workday, the permissible exposure limit, as a time weighted average (TWA) for that day, shall be reduced according to the following formula: Maximum permissible limit (in ug/m3)=400 divided by the hours worked in the day.
d) Time weighted average (TWA) The average exposure to a contaminant or condition (such as noise) to which workers may be exposed without adverse effect over a period such as in an 8-hour day or 40-hour week.
e) Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, US Department of Labor or designee.
f) Competent Person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions and who has the authority to take prompt corrective action to eliminate them.

g) Director means the Director, National Institute for Occupational Safety and Health (NIOSH), US Department of Health and Human Services, or designee.
h) Lead means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.
i) Blood Lead Level (PbB) Test is a medical testing to determine the level of lead in the blood reported in micrograms per 100 grams of whole blood (ug/100g).
j) Employee Exposure is exposure to airborne dust that would occur if the employee were not using respiratory protective equipment.
k) Exposure monitoring (Personnel) is an instrument monitoring of employee exposure to hazards in the workplace. The requirements for such monitoring lead environment in general industry are found in 29 CFR 1910.1025. Personal pumps are attached to representative employees to determine exposure levels.
l) Hazardous Substance (per CERCLA) is any substances that are designated by the Clean Water Act, addressed as hazardous wasted under the Solid Waste Disposal Act, addressed as hazardous air pollutant in the Clean Air Act, or addressed by the Toxic Substances Control Act as eminently hazardous chemical substances or mixtures.
m) HUD Guidelines are guidelines developed by the Department of Housing and Urban Development (HUD) for the identification and abatement of lead-based paint in housing. The guidelines establish a level for the abatement of lead at 1.0mg/cm2 when analyzed by field x-ray fluorescence analyzers, or 0.5% lead by weight (5,000 ppm) when using laboratory methods of analysis.
n) Lead-Containing Paint is for consumer use. It is defined as paint or other similar surface coating material containing lead or lead compounds, and in which the content (calculated as lead metal) is in excess of 0.06% by weight of the total non-volatile content of the paint of the weight of the dried paint film. The 0.06% level is equivalent to 600 ppm. A similar definition had been developed for industrial use, although the level of lead in traditional industrial paints can be as high as 30% or more.

## RESPONSIBILITIES

1. Safety Director shall be responsible for the following tasks:
    a) Assure the implementation of the Lead Awareness Program.
    b) Assure that all employee activities related to the Lead Awareness Program are properly coordinated to include the participation of all those who must be involved.
    c) Developing and maintaining job specification guidelines for work conducted where there is the presence of lead that is encapsulated and free from defects so that it is not disturbed.
    d) Assure that all lead related training records are maintained in accordance with the applicable portions of OSHA regulations on Hazard Communication, Lead in General Industry, Respiratory Protection, and Lead in Construction.
    e) Ensure that any workers tasked to address the presence of lead are qualified and certified in accordance with applicable federal, state, and local standards.
    f) Assure that all planned construction and maintenance activities in areas known to have lead are conducted in a manner so as to avoid disturbing the material, employee exposure, occupant exposure, and contamination of the building.

g) Assure that a record is kept of all applicable incidents and situations/accidents involving lead utilizing an incident reporting form.
h) B

2. Estimators shall be responsible for the following tasks:
    a) Assure that adequate staff and funding is available for the implementation and maintenance of the Lead Awareness Program for projects.
    b) Proactively gather information about the potential presence of lead in customer facilities while in the process of preparing bids and job specifications. This includes obtaining customer site lead records including any certified lead sampling and identification information.
    c) Working with the Lead Program Manager to assure that bids consider the potential presence of lead.
3. Superintendents and Project Managers shall be responsible for the following tasks:
    a) Assure that all employee activities related to the Lead Awareness Program are properly coordinated to include the participation of all those who must be involved.
    b) Obtain and/or present lead-specific training and technical assistance to Ziolkowski employees. This is in addition to Hazard Communication training.
    c) Gather and maintain lead-related training records in accordance with the applicable portions of the OSHA Regulations on Hazard Communication (HAZCOM) and lead.
    d) Assure that all planned construction and maintenance activities in areas known to contain lead are conducted in a manner so as to avoid disturbing the material, occupant exposure, and contamination of the building.
    e) Assure that a record is kept of all applicable incidents and situations involving lead. Assure that all required signatures are obtained, and a copy is forwarded to the Project Manager, and the Safety Director.
    f) Assure that there is a process in place to assure that all damage to lead-containing materials is reported and addressed immediately. Protocol will be that work in the area is discontinued until such a time as the damage has been addressed in an approved manner. If lead is completely encapsulated, removed, or sealed there may not be a danger of exposure. However, workers must be trained to recognize such hazards.
    g) Assure that any worker that is suspected to have been exposed to lead is notified as soon as Ziolkowski Construction is notified of potential exposure.
    h) Make arrangements for worker medical monitoring in a timely manner. All records are to be maintained for 30 years plus the length of the worker's employment with Ziolkowski Construction.
4. Employees shall be responsible for the following tasks:
    a) Understanding and following the details of the Ziolkowski Lead Awareness Program.
    b) Attending and successfully completing all required Lead-Related Awareness Training.
    c) Assuring the proper conduct of all job activities while maintaining personal safety and the safety of others.
    d) Inform Job Superintendent immediately is lead is suspected, disturbed, or damaged. Stop work and wait for the arrival of a qualified/licensed lead inspector or Safety Director to assess the severity of the situation and what needs to be done to allow work to continue in the area.

e) Stabilize the area only if properly trained to do so and the proper equipment is utilized.
f) Assure that the details of all work activities involving areas where there is the potential for contact with lead are discussed, understood, and documented as to how the work will be safely conducted.
g) Review proposed renovation, maintenance, or equipment repair work with the Safety Director if there is the suspicion of the presences of lead that has not been identified.

## IMPLEMENTATION:

General Policy:

a) No Ziolkowski employees are to work in a situation where they may disturb (i.e. drill, saw, sand, or otherwise manipulate) lead or be exposed to airborne concentrations of lead in excess of the OSHA Permissible Exposure Limit (PEL.)
b) Before contract work begins Ziolkowski must obtain from the building owner a certification as to the presence of lead in the proposed work area. Absent this information all surfaces will be treated as lead containing. The request for this certification should be sent once it is determined that the building is pre-1980 as bidding commences. The certification must be from a licensed lead inspector or equivalent in the specific state or location.
c) As part of the initial inspection of the facility/building, the management of existing lead will need to be considered before work begins. At a minimum, any of these materials found to be damaged and/or otherwise unstable will need attention. This may include anything from repair-in-place to removal.
d) Before project work begins, the customer will be told that Ziolkowski Construction employees are not to disturb lead. Where there is the potential for such contact, the material must be abated by a licensed lead abatement contractor.
e) Workers on a job site where lead has been identified, or it has been properly encapsulated and labeled, must notified of its location prior to beginning work activities. Destruction or damage of encapsulating materials could potentially expose workers to lead.
f) In the course of work activities, should employees encounter lead that may be disturbed, they should stop work at that location and notify the job site supervisor for further direction. Failure to do this may result in disciplinary action up to and including termination.
g) When notified of the presence of lead, the site supervisor shall discuss this with construction manager or customer representative and request the material be tested. The owner shall bear the cost of the test as well as all abatement costs that may be necessary to remove the lead from the site so that work may continue. Under no circumstances will Ziolkowski employees perform lead abatement or any sort or scale unless precautions to remove the lead have been established. Failure to perform in this manner may result in disciplinary actions up to and including termination of the site supervisor.
h) The abatement work will need to be done by an approved lead removal/remediation contractor, licensed, or otherwise approved in the state where the facility is located. These activities shall have documentation that is available for review by Ziolkowski

Construction. Ziolkowksi will not abate, repair, isolate, encapsulate, dispose, or test for lead.

i) Any work activities directly involving lead shall be the responsibility of the building owner. A person or firm licensed or otherwise approved in the state where the facility is located should perform it.
j) Any worker who was or may have been inadvertently exposed to lead above the OSHA limit will be notified in writing. A copy of the letter must be added to the employee's employment file and kept for 30 years plush length of employment. Arrangements for an appropriate physical exam should be made for the employee in a timely manner.
k) Lead within a facility shall be periodically monitored for changes in condition. This periodic inspection shall be performed as conditions warrant.
l) Should damage occur, repair or removal work shall be carried out by an approved lead removal/remediation contractor, licensed, or otherwise approved in the state where the facility is located, as necessary to stabilize the material. These activities shall have documentation that is available for review.
m) The Project Manager shall be responsible for obtaining monitoring results. Ziolkowski's Safety Director should review the results.

Training Requirements:

a) All workers with the potential for exposure to lead, will be trained as to the contents of this program including descriptions of lead and possible locations, effects of lead, and what to do if lead is suspected in the work environment.
b) All new employees, with potential for exposure to lead, shall receive information related to the potential locations and hazards of lead during basic Hazcom training. It will inform employees of the potential presence of lead as well as some precautions that must be observed during their work practices.
c) Training will be conducted on the employees first day and annually thereafter as necessary. Training shall be documented.
d) Employees who are in a position where they could disturb lead should receive Lead Awareness Training. Under no circumstances shall any Ziolkowski employee work in an environment where there is airborne lead exposure in excess of the PEL or where they will impact lead exposure.
e) The training is not intended to teach removal or repair procedures or practices. Completion of this training does not enable employees to handle or work on lead containing materials.
f) Lead Awareness Training shall be conducted for all required team members on an as needed basis.
g) The elements of a lead awareness program include, at a minimum, the following topics:
    1) Health effects of lead
    2) Potential locations where lead may be found in a building
    3) Recognition of lead damage and deterioration
    4) OSHA requirements related to housekeeping
    5) Proper response to lead release incidents

6) Hygiene facilities and practices
7) Signs
8) Respiratory Protection Program
9) Record keeping
10) Job specific compliance programs
11) Medical surveillance and provision for medical removal

h) Should the situation change where the decision is made for Ziolkowski employees to be involved in activities where they may be exposed to concentrations of lead at or above the TWA, a more extensive personal protection work practice control training and certification will be required of all workers before performing necessary tasks. This will only be done with the approval of the Safety Director. General details are as follows:
    1) The health effects of lead exposure
    2) The relationship between smoking and exposure to lead and lung cancer
    3) The specific nature of operations which could result in exposure to lead
    4) Engineering controls and work practices that may be associated with particular job assignments
    5) The specific procedures implemented to protect workers from exposure to lead, such as appropriate work practices, emergency and clean up procedures, and personal protective equipment to be used.
    6) Purpose, proper use, and limitations or respirators and protective clothing, if appropriate
    7) The purpose and a description of the medical surveillance program required by Appendix (C) of 29 CFR 1926.62
    8) Building owner requirements for posting signs and affixing labels and the meaning of the required legends for such signs and labels.

## LEAD SURVEY:

The following requirements apply to building owners. As contractors in these building, Ziolkowski Construction workers should use this information to guide their efforts as this information applies to the conduct of their work. Of specific importance is the information listed below. The first is a list identifying "Suspect Lead-Containing Materials"; the second is a list identifying "Common Locations of Suspect Lead-Containing Materials."

## SIGNS AND LABELS:

a) Must be posted by the building owner, owner's representative, and/or abatement contractor.
b) Signs posted and visible at the entrance to rooms and into which workers may reasonable be expected to enter and which contain lead. They are to identify the material present, its location, and appropriate work practices to be followed to ensure that the lead is not disturbed.

c) Labels may be used as an alternative to signs to ensure that the proper work practices are observed and that lead is not disturbed. They may be visibly affixed to identify the presence of lead, such as on pipes, paint, tools, clothing, and equipment.
d) Labels must contain a warning statement against breathing dust
e) The wording for labels is:

DANGER
Contains Lead Material
Avoid Creating Dust
Cancer and Lung Disease Hazard
Authorized Workers Only

# MOLD

If suspected mold is observed in the work site, contact your project manager or safety director for guidance and to arrange testing as necessary. Mold exposure has been linked to ill health effects and may need to be abated or treated. Additional personal protective equipment may be required such as respirators, Tyvek suits, gloves, face shields, etc.

# ANIMAL FECES

Accumulated animal feces and/or urine can pose risks to employee health. In the event this is observed in the workplace, stop work, contact your project manager or safety director for recommendations. Particularly, waste from bats, pigeons, rats, and mice may be hazardous to human health.

# COVID-19 POLICY

**Ziolkowski Construction, Inc.** takes the health and safety of our employees very seriously. With the spread of the coronavirus or "COVID-19," a respiratory disease caused by the SARS-CoV-2 virus, we all must remain vigilant in mitigating the outbreak. This is particularly true for the construction industry, which has been deemed "essential" in many locations throughout the United States during this Declared National Emergency. In order to be safe and maintain operations, we have developed this COVID-19 Exposure Prevention, Preparedness, and Response Plan to be implemented throughout the Company and at all of our jobsites. We have also identified a team of employees to monitor available U.S. Center for Disease Control and Prevention ("CDC") and Occupational Safety and Health Administration ("OSHA") guidance on the virus.

This Plan is based on currently available information from the CDC and OSHA, and is subject to change based on further information provided by the CDC, OSHA, and other public officials. The Company may also amend this Plan based on operational needs.

## I. Responsibilities of Managers and Supervisors

All managers and supervisors must be familiar with this Plan and be ready to answer questions from employees. Managers and supervisors must set a good example by following this Plan at all times. This involves practicing good personal hygiene and jobsite safety practices to prevent the spread of the virus. Managers and supervisors must encourage this same behavior from all employees.

## II. Responsibilities of Employees

We are asking every one of our employees to help with our prevention efforts while at work. In order to minimize the spread of COVID-19 at our jobsites, we all must play our part. As set forth below, the Company has instituted various housekeeping, social distancing, and other best practices at our jobsites. All employees must follow these. In addition, employees are expected to report to their managers or supervisors if they are experiencing signs or symptoms of COVID-19, as described below. If you have a specific question about this Plan or COVID-19, please ask your manager or supervisor. If they cannot answer the question, please contact the Safety Director.

OSHA and the CDC have provided the following control and preventative guidance to all workers, regardless of exposure risk:

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol.

- Avoid touching your eyes, nose, or mouth with unwashed hands.

- Follow appropriate respiratory etiquette, which includes covering for coughs and sneezes.

- Avoid close contact with people who are sick.

In addition, employees must familiarize themselves with the symptoms of COVID-19:

- Coughing;

- Fever of 100.4 degrees Fahrenheit or higher;

- Shortness of breath, difficulty breathing; and

- Early symptoms such as chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, and runny nose.

If you develop a fever and symptoms of respiratory illness, such as cough or shortness of breath, DO NOT GO TO WORK and call your healthcare provider right away. Likewise, if you come into close contact with someone showing these symptoms, call your healthcare provider right away.

## III. Guidance for Critical Infrastructure Employers

The CDC has provided guidance for employers regarding safety practices for "critical infrastructure workers" who may have been exposed to a person with a suspected or confirmed case of COVID-19. Construction has been deemed as critical infrastructure by the U.S. Department of Homeland Security's Cybersecurity and Infrastructure Security Agency ("CISA") and many state and local jurisdictions have similarly deemed construction as critical infrastructure during the COVID-19 pandemic. Given this, Ziolkowski Construction is adopting the following protocol for employees exposed or potentially exposed to a suspected or confirmed case of COVID-19, consistent with CDC recommendations.

If a critical infrastructure employee has been exposed or potentially exposed to a suspected or confirmed case of COVID-19, Ziolkowski Construction may permit the employee to continue to work, but will implement the following practices:

- Measure temperature of employees before they enter the worksite (see Appendix A for additional information);
- Regularly monitor asymptomatic employees;
- Exposed or potentially exposed employees wear a mask/face covering for 14 days after exposure;
- Have employees maintain social distancing as work duties permit; and
- Routinely disinfect workspaces.

Depending upon workforce needs, Ziolkowski Construction may choose to keep the exposed or potentially exposed employee away from work for 14 days. *See also* Section VI below.

## IV. Job Site Protective Measures

The Company has instituted the following protective measures at all jobsites.

*A. General Safety Policies and Rules*

- Any employee/contractor/visitor showing symptoms of COVID-19 will be asked to leave the jobsite and return home. **Ziolkowski Construction** may determine that taking employee/contractor/visitor temperatures at worksites is appropriate and restrict access based upon temperature readings. As an alternative to taking temperatures at the worksite, **Ziolkowski Construction** may request employees/contractors/visitors to take their own temperatures prior to coming to the worksite. (See Appendix A for additional information.)
- Safety meetings will be by telephone, if possible. If safety meetings are conducted in-person, attendance will be collected verbally and the foreman/superintendent will sign-in each attendee. Attendance will not be tracked through passed-around sign-in sheets or mobile devices. During any in-person safety meetings, avoid gathering in groups of more than 10 people and participants must remain at least six (6) feet apart.
- Employees must avoid physical contact with others and direct employees/contractors/visitors to increase personal space to at least six (6) feet, where possible. Where work trailers are used, only necessary employees should enter the trailers and all employees should maintain social distancing while inside the trailers.
- All in-person meetings will be limited. To the extent possible, meetings will be conducted by telephone.

- Employees will be encouraged to stagger breaks and lunches, if practicable, to reduce the size of any group at any one time to less than ten (10) people.

- The Company understands that due to the nature of our work, access to running water for hand washing may be impracticable. In these situations, the Company will provide, if available, alcohol-based hand sanitizers and/or wipes.

- Employees should limit the use of co-workers' tools and equipment. To the extent tools must be shared, the Company will provide alcohol-based wipes to clean tools before and after use. When cleaning tools and equipment, consult manufacturing recommendations for proper cleaning techniques and restrictions.

- Employees are encouraged to limit the need for N95 respirator use, by using engineering and work practice controls to minimize dust. Such controls include the use of water delivery and dust collection systems, as well as limiting exposure time.

- The Company will divide crews/staff into two (2) groups where possible so that projects can continue working effectively in the event that one of the divided teams is required to quarantine.

- As part of the division of crews/staff, the Company will designate employees into dedicated shifts, at which point, employees will remain with their dedicated shift for the reminder of the project. If there is a legitimate reason for an employee to change shifts, the Company will have sole discretion in making that alteration.

- Employees are encouraged to minimize ride-sharing. While in vehicle, employees must ensure adequate ventilation and consider the use of face coverings.

- If practicable, employees should use/drive the same truck or piece of equipment every shift.

- In lieu of using a common source of drinking water, such as a cooler, employees should use individual water bottles. Use of tobacco products (chewing tobacco, smoking), vaping, sunflower seeds, etc., should be avoided.

***Additional Jobsite Safety Precautions Include:***

*B. Workers entering Occupied Building and Homes*

- When employees perform construction and maintenance activities within occupied homes, office buildings, and other establishments, these work locations present unique hazards with regards to COVID-19 exposures. All such workers should evaluate the specific hazards when determining best practices related to COVID-19.

- During this work, employees must sanitize the work areas upon arrival, throughout the workday, and immediately before departure. The Company will provide alcohol-based wipes for this purpose.

- Employees should ask other occupants to keep a personal distance of six (6) feet at a minimum. Workers should wash or sanitize hands immediately before starting and after completing the work.

*C. Job Site Visitors*

- The number of visitors to the job site, including the trailer or office, will be limited to only those necessary for the work.

- All visitors will be screened in advance of arriving on the job site. If the visitor answers "yes" to any of the following questions, he/she should not be permitted to access the jobsite:

  - Have you been confirmed positive for COVID-19?

  - Are you currently experiencing, or recently experienced, any acute respiratory illness symptoms such as fever, cough, or shortness of breath?

  - Have you been in close contact with any persons who have been confirmed positive for COVID-19 and are also exhibiting acute respiratory illness symptoms?

  - Have you been in close contact with any persons who have traveled and are also exhibiting acute respiratory illness symptoms?

- **Ziolkowski Construction** may determine that taking visitor temperatures at worksites is appropriate and restricting access based upon temperature readings. As an alternative to taking temperatures at the worksite, **Ziolkowski Construction** may request visitors take their own temperatures prior to coming to the worksite. (See Appendix A for more information.)

- Site deliveries will be permitted but should be properly coordinated in line with the employer's minimal contact and cleaning protocols. Delivery personnel should remain in their vehicles if at all possible.

*D. Personal Protective Equipment and Work Practice Controls*

- In addition to regular PPE for workers engaged in various tasks (fall protection, hard hats, hearing protection), employers will also provide:

    - Gloves: Gloves should be worn at all times while on-site. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves. Employees should avoid sharing gloves.

    - Eye protection: Eye protection should be worn at all times while on-site.

    - **NOTE:** The CDC is currently not recommending that healthy people wear N95 respirators to prevent the spread of COVID-19. Employees should wear N95 respirators if required by the work and if available.

- Due to the current shortage of N95 respirators, the following Work Practice Controls should be followed:

    - Keep dust down by using engineering and work practice controls, specifically through the use of water delivery and dust collection systems.

    - Limit exposure time to the extent practicable.

    - Isolate workers in dusty operations by using a containment structure or distance to limit dust exposure to those employees who are conducting the tasks, thereby protecting nonessential workers and bystanders.

    - Institute a rigorous housekeeping program to reduce dust levels on the jobsite.

- To the extent that shortages of N95 respirators continue to occur, the Company will take the following steps in accordance with OSHA guidance to continue to protect employees where respirator use is required by other OSHA standards:

    - *Extended use or reuse of N95s* – If extended use or reuse of N95 respirators becomes necessary, the same employee is permitted to extend use of or reuse the respirator, as long as the respirator maintains its structural and functional integrity and the filter material is not physically damaged, soiled, or contaminated.

    - *Use of expired N95s* – If N95s are not available and extended use or reuse of N95s is not possible, employees may use previously NIOSH-certified *expired* N95s.

    - *Non-NIOSH approved respirators* – If N95s are not available, extended use or reuse of N95s is not possible, and expired N95s are not available, employees may use respirators that are either certified under certain standards of other countries; or previously certified under the standards of other countries but beyond their

manufacturer's recommended shelf life. OSHA directs those respirators certified by the People's Republic of China be used only after respirators from other countries are sought.

*E. Face Coverings*

**Ziolkowski Construction** has reviewed OSHA's workplace classification scheme for worker exposure potential to COVID-19. While construction work could generally be considered "low risk" for viral transmission, some construction tasks or activities may involve working with others in proximity closer than six feet, including sitting in the same vehicle, and therefore might be considered as "medium risk" under the Agency's risk pyramid.

Due to this and CDC recommendations, we are implementing a face covering policy for certain work activities for the foreseeable future, including those situations where (1) it is mandated by state or local rule, or (2) employees must work in proximity of six (6) feet from other employees. A face covering is a cloth, bandana, or other type of material that covers a person's nose and mouth. The CDC lists five criteria for "cloth face coverings": the face covering should:

- fit snugly but comfortably against the side of the face;
- be secured with ties or ear loops;
- include multiple layers of fabric;
- allow for breathing without restriction; and
- be able to be laundered and machine-dried without damage or change to shape.

Use of a face covering is not a substitute for other workplace preventative techniques that are outlined in this Plan.

## V. Job Site Cleaning and Disinfecting

The Company has instituted regular housekeeping practices, which includes cleaning and disinfecting frequently used tools and equipment, and other elements of the work environment, where possible. Employees should regularly do the same in their assigned work areas.

- Jobsite trailers and break/lunchroom areas will be cleaned at least once per day. Employees performing cleaning will be issued proper personal protective equipment ("PPE"), such as nitrile, latex, or vinyl gloves and gowns, as recommended by the CDC.

- Any trash collected from the jobsite must be changed frequently by someone wearing nitrile, latex, or vinyl gloves.

- Any portable jobsite toilets should be cleaned by the leasing company at least twice per week and disinfected on the inside. The Company will ensure that hand sanitizer

dispensers are always filled. Frequently touched items (i.e., door pulls and toilet seats) will be disinfected frequently.

- Vehicles and equipment/tools should be cleaned at least once per day and before change in operator or rider.
- The Company will ensure that any disinfection shall be conducted using one of the following:
  - Common EPA-registered household disinfectant;
  - Alcohol solution with at least 60% alcohol; or
  - Diluted household bleach solutions (these can be used if appropriate for the surface).
- The Company will maintain Safety Data Sheets of all disinfectants used on site.

***Additional Cleaning and Disinfection Guidelines Include:***

## VI. Jobsite Exposure Situations

- **Employee Exhibiting COVID-19 Symptoms**

If an employee exhibits COVID-19 symptoms, the employee must remain at home until he or she is symptom free for 72 hours (3 full days) without the use of fever-reducing or other symptom-altering medicines (e.g., cough suppressants). The Company will similarly require an employee that reports to work with symptoms to return home until they are symptom free for 72 hour (3 full days). To the extent practical, employees are required to obtain a doctor's note clearing them to return to work.

- **Employee Tests Positive for COVID-19**

An employee that tests positive for COVID-19 will be directed to self-quarantine away from work. Employees that test positive and are symptom free may return to work when at least seven

(7) days have passed since the date of his or her first positive test and have not had a subsequent illness. Employees that test positive and are directed to care for themselves at home may return to work when: (1) at least 72 hours (3 full days) have passed since recovery;[1] and (2) at least seven (7) days have passed since symptoms first appeared. Employees that test positive and have been hospitalized may return to work when directed to do so by their medical care provider. The Company will require an employee to provide documentation clearing their return to work.

- **Employee Has Close Contact with a Tested Positive COVID-19 Individual**

Employees that have come into close contact with a confirmed-positive COVID-19 individual (co-worker or otherwise), will be directed to either: (1) continue to work, provided they remain asymptomatic in accordance with Section III above; or, if they are symptomatic or the Company chooses to follow more conservative protocols, (2) self-quarantine for 14 days from the last date of close contact with the carrier. Close contact is defined as six (6) feet for a prolonged period of time.

If the Company learns that an employee has tested positive, the Company will conduct an investigation into co-workers that may have had close contact with the confirmed-positive employee in the prior 14 days and direct those individuals that have had close contact with the confirmed-positive employee to either continue to work, provided they remain asymptomatic in accordance with Section III above, or, if they are symptomatic or the Company chooses to follow more conservative protocols, to self-quarantine for 14 days from the last date of close contact with the carrier. If an employee learns that he or she has come into close contact with a confirmed-positive individual outside of the workplace, he/she must alert a manager or supervisor of the close contact.

## VII. OSHA Recordkeeping

For purposes of recording cases of COVID-19, the Company is responsible for recording a case, if:

- The case is a tested-positive confirmed case of COVID-19, as defined by the CDC; and

- The case is "work-related," which is defined as an event or exposure that either caused or contributed to the resulting condition or significantly aggravated a pre-existing injury or illness; and

- The case involves one or more of the following:

[1] Recovery is defined as: (1) resolution of fever without the use of fever-reducing medications; and (2) improvement in respiratory symptoms (e.g., cough, shortness of breath).

- Death;
- Days away from work;
- Restricted work or transfer to another job;
- Medical treatment beyond first aid;
- Loss of consciousness; and
- A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

However, per OSHA recent guidance, the Company will consider a COVID-19 positive case to be work-related only where:

- There is objective evidence that a COVID-19 case may be work-related. For example, a number of cases developing among workers who work closely together without an alternative explanation; and
- The evidence was reasonably available to the Company. For example, the Company was given information by employees or the Company learns of information regarding employees' health and safety in the ordinary course of business.

For purposes of reporting the case to OSHA, the Company will report any work-related confirmed cases if they result in a fatality within 30 days or an in-patient hospitalization within 24-hours of the exposure incident occurring.

## VIII. "Essential" Industry

Several States and localities are issuing orders that prohibit work and travel, except for essential businesses. In general, construction work has been deemed essential and the Company is committed to continuing operations safely. If upon your travel to and from the worksite, you are stopped by State or local authorities, you will be provided a letter, where necessary, that you can show the authorities indicating that you are employed in an "essential" industry and are commuting to and from work.

## IX. Confidentiality/Privacy

Except for circumstances in which the Company is legally required to report workplace occurrences of communicable disease, the confidentiality of all medical conditions will be maintained in accordance with applicable law and to the extent practical under the circumstances. When it is required, the number of persons who will be informed of an employee's condition will be kept at the minimum needed not only to comply with legally-required reporting, but also to assure proper care of the employee and to detect situations where the potential for transmission may increase. A sample notice to employees is attached to this Plan. The Company reserves the right to inform other employees that a co-worker (without disclosing the person's name) has been diagnosed with COVID-19 if the other employees might have been exposed to the disease so the employees may take measures to protect their own health.

## X. General Questions

Given the fast-developing nature of the COVID-19 outbreak, the Company may modify this Plan on a case by case basis. If you have any questions concerning this Plan, please contact the Safety Director.

# Appendix A – Temperature Screening Guidance

General Considerations[2]

- Certain local jurisdictions have recommended or required employers to conduct temperature screenings of employees as they enter the worksite. Any applicable federal, state, or local requirements on employee temperature screenings should be consulted prior to performing them.

- Temperature screenings must be conducted consistently, professionally, and with proper training for those conducting the checks. Such checks must be uniformly and non-discriminatorily conducted on all employees (as well as contractors, vendors, customers, and/or visitors, if they will also be screened).

- Any information obtained from temperature screenings should be stored securely with access limited to those with a business need to know. It is essential to have proper documentation in the event that an individual needs to be excluded from the worksite based on the results of their temperature screening. If excluding individuals from a worksite based upon temperature, a set temperature should be established, based upon public health recommendations. Many employers have set the temperature required for exclusion at 100.4 degrees Fahrenheit or above.

- Wage protocols and procedures to account for any potential time spent waiting in line to be screened must also be considered. This is particularly important at worksites where there may be numerous workers reporting to their shift at the same time and only one or two individuals conducting the temperature screenings. Any existing Collective Bargaining Agreements should also be considered.

Options for Screening

- There are two options for how temperature screening can be conducted:

    - By the employee, at home, prior to leaving for work; or

    - By the employer, at the worksite, when the employee arrives to report for their shift.

- Types of temperature screeners:

    - *Traditional digital thermometers applied typically in the ear*. These thermometers should only be used with a temperature screening policy that

[2] Temperature screening involves numerous, difficult legal issues. This Appendix does not represent a comprehensive discussion of all of those issues. It is intended to provide some basic guidance to contractors who might be performing screening. Contractors should consult with legal counsel before implementing a screening program.

requires employees to conduct such screenings at their homes, prior to leaving for their shift. These types of thermometers should not be used by employers at the worksite as there would be a high risk of exposure for the individuals conducting such temperature screenings.

- *Infrared thermometers*. Infrared thermometers are the most practicable and safe option for conducting screening at work. However, the individual conducting such temperature screening must still be provided with appropriate protective gear. If the infrared thermometer does not allow the individual conducting the screening to stand at least six feet from the employee being screened, the following protective gear is recommended:

    - The individual conducting the screening should wear a face covering and gloves. If at all possible, the employee being screened should wear a face covering as well during the check.

    - If the employee is not wearing a face covering, the individual conducting the screening should wear a gown and eye protection in addition to a face covering and gloves.

  If the individual conducting the screening is able to stand six feet or more from the employee being screened, no additional protective gear is necessary, though a face mask and gloves are recommended.

# Essential Industry Employee

Re: Shelter-in-Place Orders

To whom it may concern:

Please be informed that the bearer of this letter is employed at Ziolkowski Construction, located at 4050 Ralph Jones Dr, South Bend, IN 46628. The Company is a Construction Company. We have reviewed all applicable Orders and have determined that our operations qualify as essential/critical infrastructure and that we are able to continue to operate under those Orders.

Employees in possession of this letter have been deemed essential to the minimum basic operations of our business. All non-essential personnel have been notified to work remotely until further notice. Employees who are critical to the minimum basic operations of the business have been instructed to comply with social distancing rules/requirements in the jurisdiction, as well as other safety and health precautions.

If you have questions regarding the nature or scope of this letter, please do not hesitate to contact the Safety Director at 574-287-1811.

Sincerely,

# Employee Notification

DATE: [DATE]

TO: [CLOSE CONTACT EMPLOYEE]

FROM: [COMPANY REP]

We have been informed by one of our [employees/customer/vendor/etc] working at [SITE] that he/she has a confirmed case of COVID-19, commonly known as "Coronavirus," based on test results obtained on [DATE]. Per company policy, this [employee/customer/vendor/etc] has been directed to self-quarantine until permitted to return to work.

We are alerting you to this development because, based on the Company's investigation, we believe that you may have come into contact with the confirmed-positive case, on or about [DATE]. As a critical infrastructure employee, **Ziolkowski Construction** will permit you to work provided you remain asymptomatic. In addition, we are implementing the following practices:

- Measuring temperature of employees before they enter the worksite;
- Regularly monitoring asymptomatic employees;
- Ensuring employees maintain social distancing as work duties permit; and
- Routinely disinfecting workspaces.

You are also required to wear a face covering at all times while at the worksite for at least 14 days. Please inform [COMPANY CONTACT] if any of the following occur to you during the next 14 days: you experience flu-like symptoms, including fever, cough, sneezing, or sore throat; or you test positive for COVID-19.

We also want to take this opportunity to remind you that one of our core values as a company is respect for and among our employees. We will treat information regarding the identity of employees with suspected or confirmed cases of COVID-19 as confidential to the extent practicable and will comply with applicable laws regarding the handling of such information. Further, per Company policy, we will not tolerate harassment of, or discrimination or retaliation against, employees.

Please contact the Safety Director at 574-287-1811 if you have any questions or concerns.

For more information about COVID-19, please visit the CDC website at: http://www.cdc.gov/coronavirus/2019-ncov/index.html

# COVID-19 Checklist for Employers and Employees

**Know the Symptoms of COVID-19**

- Coughing, fever, shortness of breath, and difficulty breathing.
- Early symptoms may include chills, body aches, sore throat, headache, diarrhea, nausea/vomiting, and runny nose. If you develop a fever and symptoms of respiratory illness, DO NOT GO TO WORK and call your health-care provider immediately. Do the same thing if you come into close contact with someone showing these symptoms.

**Employer Responsibilities**

- Develop a COVID-19 Exposure Action Plan.
- Conduct safety meetings (toolbox talks) by phone if possible. If not, instruct employees to maintain 6-feet between each other. The foreman/supervisor will track attendance verbally rather than having employees sign an attendance sheet.
- Access to the job site and work trailer will be limited to only those necessary for the work.
- All visitors will be pre-screened to ensure they are not exhibiting symptoms.
- Employees, contractors, and visitors will be asked to leave the jobsite and return home if they are showing symptoms.
- Provide hand sanitizer and maintain Safety Data Sheets of all disinfectants used on site.
- Provide protective equipment (PPE) to any employees assigned cleaning/disinfecting tasks.
- Talk with business partners about your response plans. Share best practices with other businesses in your communities (especially those in your supply chain), chambers of commerce, and associations to improve community response efforts.

**Employee Responsibilities**

- Become familiar with the Exposure Action Plan and follow all elements of the Plan.
- Practice good hygiene: wash hands with soap and water for at least 20 seconds. If these are not available, use alcohol-based hand rub with at least 60% alcohol. Avoid touching your face, eyes, food, etc. with unwashed hands.

**Cleaning/Disinfecting Job Sites and Other Protective Measures**

- Clean and disinfect frequently used tools and equipment on a regular basis. This includes other elements of the jobsite where possible. Employees should regularly do the same in their assigned work areas.
- Clean shared spaces such as trailers and break/lunchrooms at least once per day.
- Disinfect shared surfaces (door handles, machinery controls, etc.) on a regular basis.
- Avoid sharing tools with co-workers. If not, disinfect before and after each use.
- Arrange for any portable job site toilets be cleaned by the leasing company at least twice per week and disinfected on the inside.
- Trash collected from the jobsite must be changed frequently by someone wearing gloves.

**Personal Protective Equipment and Alternate Work Practice Controls**

- Provide and wear the proper PPE.

- Keep the dust down by using engineering and work practice controls, specifically through the use of water delivery and dust collection systems.

# COVID-19 Toolbox Talk

## What is COVID-19?

The novel coronavirus, COVID-19 is one of seven types of known human coronaviruses. COVID-19, like the MERS and SARS coronaviruses, likely evolved from a virus previously found in animals. The remaining known coronaviruses cause a significant percentage of colds in adults and children, and these are not a serious threat for otherwise healthy adults.

Patients with confirmed COVID-19 infection have reportedly had mild to severe respiratory illness with symptoms such as fever, cough, and shortness of breath.

According to the U.S. Department of Health and Human Services/Centers for Disease Control and Prevention ("CDC"), Chinese authorities identified an outbreak caused by a novel—or new—coronavirus. The virus can cause mild to severe respiratory illness. The outbreak began in Wuhan, Hubei Province, China, and has spread to a growing number of other countries—including the United States.

## How is COVID-19 Spread?

COVID-19, like other viruses, can spread between people. Infected people can spread COVID-19 through their respiratory secretions, especially when they cough or sneeze. According to the CDC, spread from person-to-person is most likely among close contacts (about 6 feet). Person-to-person spread is thought to occur mainly *via* respiratory droplets produced when an infected person coughs or sneezes, like how influenza and other respiratory pathogens spread. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. It is currently unclear if a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes.

In assessing potential hazards, employers should consider whether their workers may encounter someone infected with COVID-19 in the course of their duties. Employers should also determine if workers could be exposed to environments (e.g., worksites) or materials (e.g., laboratory samples, waste) contaminated with the virus.

Depending on the work setting, employers may also rely on identification of sick individuals who have signs, symptoms, and/or a history of travel to COVID-19-affected areas that indicate potential infection with the virus, in order to help identify exposure risks for workers and implement appropriate control measures.

There is much more to learn about the transmissibility, severity, and other features associated with COVID-19, and investigations are ongoing.

**COVID-19 Prevention and Work Practice Controls:**

Worker Responsibilities

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol. Always wash hands that are visibly soiled.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Avoid close contact with people who are sick.
- Employees who have symptoms (i.e., fever, cough, or shortness of breath) should notify their supervisor and stay home—DO NOT GO TO WORK.
- Sick employees should follow CDC-recommended steps. Employees should not return to work until the criteria to discontinue home isolation are met, in consultation with healthcare providers and state and local health departments.

General Job Site / Office Practices

- Clean AND disinfect frequently touched objects and surfaces such as workstations, keyboards, telephones, handrails, and doorknobs. Dirty surfaces can be cleaned with soap and water prior to disinfection. To disinfect, use products that meet EPA's criteria for use against SARS-CoV-2external icon, the cause of COVID-19, and are appropriate for the surface.
- Avoid using other employees' phones, desks, offices, or other work tools and equipment, when possible. If necessary, clean and disinfect them before and after use.
- Clean and disinfect frequently used tools and equipment on a regular basis.
    - This includes other elements of the jobsite where possible.
    - Employees should regularly do the same in their assigned work areas.
- Clean shared spaces such as trailers and break/lunchrooms at least once per day.
- Disinfect shared surfaces (door handles, machinery controls, etc.) on a regular basis.
- Avoid sharing tools with co-workers if it can be avoided. If not, disinfect before and after each use.
- Arrange for any portable job site toilets to be cleaned by the leasing company at least twice per week and disinfected on the inside.
- Any trash collected from the jobsite must be changed frequently by someone wearing gloves.
- In addition to regular PPE for workers engaged in various tasks (fall protection, hard hats, hearing protection), employers will also provide:
    - Gloves: Gloves should be worn at all times while on-site. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including latex gloves. Gloves should not be shared if at all possible.
    - Eye protection: Eye protection should be worn at all times while on-site.

- Some employees may be required to wear face coverings, including in those situations where (1) it is mandated by state or local rule, or (2) employees must work in proximity of six (6) feet from other employees. A face covering is a cloth, bandana, or other type of material that covers a person's nose and mouth. The CDC lists five criteria for "cloth face coverings": the face covering should: fit snugly but comfortably against the side of the face; be secured with ties or ear loops; include multiple layers of fabric; allow for breathing without restriction; and be able to be laundered and machine-dried without damage or change to shape. Use of a face covering is not a substitute for other workplace preventative techniques that are outlined in this Plan.

# UNUSUAL CONDITIONS

In the event you encounter special operating conditions, such as work along railroad right of ways, above or immediately adjacent to waterways, or other non-typical work sites, contact the Safety Director for guidance.