

Zolutions, LLC

Health & Safety Instruction

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Zolutions, LLC

Health and Safety Plan

All employees in the construction industry need to understand and follow basic safety rules to ensure their safety and that of their co-workers. The following Health and Safety Plan for Zolutions, LLC is intended to provide an effective health and safety plan for our employees. Additionally, this plan contains a safety and disciplinary policy to ensure employee compliance with safety rules and regulations.

It is our policy to provide a safe and healthy work environment for everyone. A safe environment does not occur by *chance*. It requires everyone's *close attention* and *open communication* between management and employees. Workers who notice hazards or other safety problems, or who believe that they need additional training, must notify their supervisors *immediately*. Supervisors and management must address the concerns of workers and make sure that any problems immediately corrected.

Everyone is obligated to know and abide by the safety requirements and standards for their area or job. Through their own "pro-safety" attitudes and practices, supervisors must instill a positive attitude in workers. In return, employees must give training exercises and safety meetings the utmost attention and must follow all safety regulations. Compliance with safety policies is a condition of employment and must be taken very seriously. Failure to comply will result in disciplinary action, including termination of employment for serious or repeat violations.

Nothing is more important to this company than your safety and that of your co-workers.

Do not think that safety and health are somehow at odds with productivity and quality. In fact, they go hand and hand. Studies have shown that the safer a workplace, the more productive its workers and the better its products. Do not endanger your own life and health or that of your co-workers. Be safe so that you can stay healthy and enjoy life to its fullest.

Tamara S. Crooks
President,
Zolutions, LLC

Purpose

Zolutions, LLC is totally committed to employee safety.

It is our intention:

- § that all employees work under the safest conditions possible; and
- § that we provide information, training, and supervision to enable employees to perform their jobs safely.

Under the Occupational Safety and Health Act, construction industry employers must furnish each employee with a place of employment that is free from recognized hazards that are likely to cause death or serious injury. Additionally, employers must comply with, and require all employees to comply with, specific standards and rules that apply to their operations. To accomplish this, employers must educate and train employees in the rules and regulations that apply to them.

The information in this Health and Safety Plan states basic safety rules and procedures that are to be followed by all company employees. While this plan will help you recognize and avoid obvious hazards, it is merely intended to highlight some of the fundamentals of safety. This plan cannot possibly cover all situations or delve into great detail in any particular area of construction safety. Specific plans for particular areas, such as asbestos control, assured equipment grounding, confined space entry, fire protection and prevention, hazard communication, hearing conservation, lock-out/tag-out, and respiratory protection, will be implemented as required. *When in doubt, consult your supervisor for guidance.*

This Health and Safety Plan is designed to generally reflect company policy, but it is not intended to be a binding legal contract. Thus, this plan does not alter any employee's at-will status or grant any other legal rights to any employee.

Allocation of Health and Safety Responsibilities

Employee safety is our highest priority, so *avoiding* workplace accidents and injuries is vital. Consequently, the duties and responsibilities of all personnel must be clearly defined.

The roles of safety managers, project managers, supervisors, and others are set forth below. Many safety responsibilities overlap. Unless employees cross-check each other, many hazards commonly go unnoticed.

Safety Manager Responsibilities

1. *Administration*: Administer all aspects of the Health and Safety Plan.
2. *Hazard Control*: Develop programs and technical guidance to identify and correct hazards.
3. *Safety Training*: Assist managers and supervisors in safety training of employees.
4. *Inspections*: Conduct inspections to identify and correct hazards.
5. *Reports*: Complete written reports of inspections.
6. *Safety Motivation*: Develop incentives and programs to motivate employees in health and safety matters.
7. *Posters and Notices*: Properly post and maintain the OSHA Form 200 (or its replacement, once adopted), any state health and safety posters, emergency phone numbers, and other required notices.
8. *Accident and "Near Miss" Recordings*: Develop and maintain accident and "near miss" investigation and reporting procedures and systems to:
 - § record reportable incidents consisting of fatalities, lost workday cases, and cases without lost workdays requiring medical treatment;
 - § determine accident *causes*; and
 - § inform management of findings.
9. *Accident Reporting*: Report accidents involving an occupational fatality or three or more hospitalized workers to OSHA within eight hours of occurrence.

Project Manager / Superintendent / Foreman Responsibilities

1. *Familiarity with Regulations:* Familiarize yourself with health and safety regulations related to your areas of responsibility and oversee their enforcement.
2. *Safety Oversight:* Oversee health and safety activities within your area of responsibility.
3. *First Aid/Medical Attention:* Ensure first aid and prompt medical attention is available in case of serious injury.
4. *Personal Protective Equipment (PPE):* Ensure that needed PPE is available and properly used and maintained by employees.
5. *Safety Training:* Instruct and train all persons under your supervision in job health and safety requirements.
6. *Regular Inspections:* Conduct frequent and regular health and safety inspections of the work area.
7. *Problem Correction:* Correct any unsafe conditions when discovered or brought to your attention.
8. *Weekly Safety Meetings:* Conduct weekly safety briefings with supervisors and workers.
9. *Foremen Compliance:* Ensure that foremen understand and comply with safety requirements.
10. *Accident and “Near Miss” Investigations:* Review all accidents and unsafe practices with the foremen and workers involved and ensure that corrective action is taken immediately.
11. *Subcontractor Compliance:* Require subcontractors and their personnel to comply with health and safety regulations.
12. *On-site Records:* Maintain copies of applicable programs and OSHA forms on-site if necessary (for example, the Hazard Communication Plan, Material Data Safety Sheets, and OSHA 200 Injury Log if not quickly available from the central office).

First Line Supervisor / Foreman Responsibilities

1. *Familiarity with Regulations*: Familiarize yourself with safety regulations within your area of responsibility and enforce these regulations.
2. *Personal Protective Equipment (PPE)*: Ensure that persons under your supervision use safety devices and proper PPE.
3. *Safety Training*: Instruct and train all persons within your area of responsibility in job health and safety requirements and hazard recognition and avoidance.
4. *Employee Compliance*: Enforce compliance by workers with applicable safety rules.
5. *Weekly Safety Meetings*: Conduct weekly safety briefings with all workers under your supervision.
6. *Treatment for Injuries*: Ensure that injuries are treated promptly and reported properly.
7. *Accident and “Near Miss” Investigations*: Investigate all accidents, “near misses,” and unsafe practices; obtain all pertinent data; and initiate necessary corrective action.
8. *Regular Safety Inspections*: Conduct frequent and regular safety and health inspections to ensure that no unsafe conditions exist in your area of responsibility.
9. *Reporting Problems to Upper Management*: Report any needed corrective actions that are beyond your control to the project manager / superintendent / foreman.

Office Manager / Clerk Responsibilities

1. *Accident and Inspection Records:* Maintain permanent records associated with accidents, on-site inspections, and in-house audits (including those required for workers' compensation).
2. *Medical Records:* Maintain all medical records, evaluations, and exposure monitoring records for 30 years.
3. *Training Records:* Maintain all training records for at least three years.

All Employees Shall:

1. *Follow Safety Rules:* Follow applicable safety rules and regulations at all times; refuse to take shortcuts.
2. *Avoid Unsafe Acts:* Never perform any tasks that appear to be risky or unsafe; report any such conditions or practices immediately.
3. *Use PPE and Safety Devices:* Always wear PPE and use safety devices when needed.
4. *Listen to Supervisors:* Listen to supervisors in charge of each operation who have been instructed to familiarize employees with safe operations and practices.
5. *Avoid Discipline or Discharge:* Be responsible for your performance and for following safety rules; failure to do so will lead to disciplinary action or discharge.

Subcontractors

In the construction industry, employees of many different subcontractors often work in the same general area under the direction of a single general contractor. Hazards created by one employer may easily pose a danger to employees who work for other employers. For example, even though a subcontractor commits a safety violation, a general contractor may be cited by OSHA as well.

Additionally, a subcontractor is responsible for protecting workers from hazards resulting from any OSHA violation as follows:

- (1) The subcontractor's own employees must not be threatened by hazards that are created by other contractors.
- (2) The actions of the subcontractor must not threaten the employees of any other contractors.
- (3) The subcontractor must properly abate any hazard that it has (or assumes) the responsibility to correct.

Accordingly, subcontractors must comply with the following rules:

1. *Compliance with Safety Standards:* Every subcontractor must comply with all state and federal safety and health standards.
2. *Abating "Correctable" Hazards:* Subcontractors must immediately and effectively correct any hazards within their power to correct.
3. *Reporting "Uncorrectable" Hazards:* Subcontractors that become aware of hazards that are not within their ability to correct or that threaten other workers must immediately notify the general contractor and any subcontractor whose employees may be endangered.

KEY AREAS OF RESPONSIBILITY

The identification of hazards, reporting and recording of injuries, and training of employees are all especially critical for safety. The *identification of hazards* helps employees to prevent injuries and illness before they occur. The *reporting and recording of injuries and illness* is essential for regulatory compliance and workers' compensation purposes. Additionally, *accidents must be brought to management's attention* so that causes may be investigated and similar mishaps may be avoided in the future.

Effective training the key to injury prevention. Experience has shown that most injuries result from unsafe actions, not unsafe conditions. Unsafe actions can only be eliminated by safe and responsible behavior of individual employees, resulting from proper education and training.

Hazard Identification, Assessment, and Control

1. Sharing Responsibility: It is the responsibility of *everyone* (management, supervisors, and all employees) to notify each other of possible hazards. Additionally to the persons who perform formal scheduled inspections, *employees* need to always "have an eye out" for potential hazards and promptly notify their foreman, supervisor, etc., of any actual or potential problems.
2. Conducting Regular Inspections: To identify hazards and unsafe practices before they cause an injury or accident, formal safety and health inspections must be conducted according to the following minimum timetables:

Health and Safety Manager:

- monthly inspections of all fixed facilities and each project or job site.
- annual review of the company's health and safety plan

Project Superintendent:

- monthly inspection of his project (more often as different phases of construction may warrant)

Foreman/Supervisor:

- weekly inspection of areas of responsibility at jobsite

Safety Technical Assistants/Insurance Company Representatives:

- may assist in on-site consultation and inspections, as desired and requested

3. Fixing Problems: After completing job site or facility inspections, the person making the inspection will:
 - discuss findings with employees or other persons responsible for creating the condition and allow for their comments and suggestions

- discuss the situation with the job superintendent (if hazards are caused by subcontractors on the job), and then point out the problem to the owner, contractor and other contractors involved;
- ensure that problems and recommended corrections are brought to the attention of the proper supervisor or other person;
- follow up to ensure that necessary changes and corrections were in fact made; and provide a copy to the company safety manager of any checklist and statement of corrective actions taken or still required (if applicable).

Reporting Job-Related Injuries and Illnesses

All job-related injuries and illnesses must be reported in accordance with the following rules:

1. *Follow Orientation Rules:* Information on reporting job-related accidents must be covered in full in the employee welcome and orientation class, which is scheduled shortly after each employee is hired.
2. *Report Immediately:* All on-the-job injuries and illnesses must be reported to a supervisor immediately-no matter how minor they may appear!
3. *Cooperate in the Investigation:* Employees who are involved in accidents should give full details concerning the nature of their injuries, the cause, the time and date, and any other relevant information.
4. *Secure Medical Treatment:* Employee should immediately secure any necessary medical treatment. *Only designated supervisors and managers can authorize treatment beyond the scope of emergency care.*
5. *Record Information:* *All accident reporting forms must be filled out.* If first aid is applied on-site, the nature of the first aid, condition of the individual, and recommendation for further treatment must all be recorded.
6. *Recognize Symptoms:* All employees should learn to detect early signs and symptoms of illnesses or ailments (such as heat stroke, heart attack, etc.), and help accordingly.
7. *Avoid Discipline or Discharge:* An employee who does not promptly or properly report accidents or illness in accordance with this policy may be disciplined or discharged.

Recording Job-Related Injuries and Illnesses (OSHA 200 Log)

The OSHA Form 200 Log will be maintained at the main office for all occupational injuries and illnesses. The superintendent is responsible for making sure that the required injury information is forwarded to the main office for posting onto the master log within six days after the accident has occurred. The summary section of the OSHA Form 200 must be posted at each job site by February 1 of the following year and remain in place until March 1.

(Note: If the construction site is open for a year or more, the superintendent may maintain this log at the job site).

Training

The importance of training in injury prevention cannot be overemphasized. Most accidents and injuries occur because of unsafe actions. These usually occur because of inadequate training and poor judgment. Employees who ignore safety training are gambling with the life and health of themselves and their co-workers.

All employees must receive the following:

- § *Orientation Training:* Before exposure to the work environment, attend orientation training to receive information and literature covering the company's health and safety policies, rules, and procedures.
- § *Particularized Training:* Receive training in the safety regulations that apply to each employee's particular job, including:
 - recognition, avoidance, and prevention of unsafe conditions
 - areas and actions requiring personal protective equipment (PPE)
 - proper use of PPE (respirators, goggles, etc.).
- § *Periodic Training:* Attend ongoing safety training sessions on as needed basis:
 - to get up to date on new equipment, procedures, and chemicals used in the workplace
 - to obtain refresher/remedial training in specific areas
 - to meet annual requirements
- § *"Tailgate Meetings":*
 - Participate in brief, informal "tailgate" meetings as needed to ensure safety.

- § **Required Attendance:** Employees must attend all safety training sessions scheduled by their supervisors for training in applicable subjects, such as:
- confined space entry
 - fall hazard and fall protection
 - hazard communication (hazardous chemicals)
 - lock-out/tag-out procedures
 - respirator care/use
 - safe handling/use of flammable, poisons, or toxics
 - scaffold use and erection dismantling
- § **Role of Supervisors:** *Supervisors* will be responsible for ensuring that employees are *scheduled* for *and receive* the individual training they need (e.g., confined space entry, respirator use). Attendance shall be documented.

KEY ITEMS FOR INSPECTION

This listing includes some basic items and categories for health and safety inspections in the construction industry. It is not intended to be all-inclusive. Rather, this listing is intended only to provide a brief outline of key areas to be surveyed and inspected.

1. First aid safety and health equipment
2. Safety posters and signs required by occupational safety and workers' Compensation laws
3. Accident reporting records
4. Effectiveness of training during worker orientation, "tailgate meetings," etc.
5. Condition and use of hand and power equipment and tools
6. Protective guards and devices, including their availability, use, and proper maintenance
7. Maintenance of clean work areas free of tripping and slipping hazards
8. Adequate lighting
9. Sanitation: potable water and clean toilets
10. Noise hazards and necessary hearing protection
11. Ventilation for gases, vapors, fumes, dusts

12. Needed personal protective equipment (PPE):
 - § hard hats/head protection
 - § respirators
 - § fall protection equipment, including safety belts and lines
 - § safety shoes
 - § eye protection
 - § gloves
 - § other items
13. Fire prevention and control, including the accessibility and condition of fire protection equipment
14. Temporary building, trailers, sheds
15. Open yard storage
16. Storage of flammable and combustible liquids, including service and refueling areas for vehicles
17. Condition and location of temporary heating devices
18. Fall protection equipment; ensuring proper placement and usage
19. Electrical system and devices:
 - § condition and use of cords
 - § ground fault protection or assured grounding conductor protection
 - § lock-out/tag-out procedures
20. Guarding of openings: floors, wall, railings
21. Moving of materials: maintenance and condition of material handling equipment and elevators
22. Ladders: condition and use
23. Hazardous chemicals: Hazard Communication Plan and Material Safety Data Sheets (MSDS)
24. Excavations and trenches: protective systems
25. Scaffolds: Safety railings and secured access
26. Other items as appropriate

HEALTH AND SAFETY RULES FOR CONSTRUCTION SITES

To be effective, a general health and safety plan **must** be understood and implemented by employees at every level of responsibility. The following lists are meant merely to briefly highlight some of the key safety regulations that apply to **Zolutions, LLC**. They are not meant to be an exhaustive set of safety instructions. A complete set may be found in the OSHA Rules and Regulations for Construction (29 CFR 1926) and for General Industry (29 CFR 1910).

Employees should also consult individual plans for specific topics, such as asbestos, confined space entry, fire protection, hazard communication, hearing conservation, lock-out/tag-out, and respiratory protection.

General Guidelines by Equipment Type

Aerial Lifts

1. *Types:*

- § Cherry pickers
- § Extensible boom platforms
- § Aerial ladders
- § Articulating boom platforms
- § Vertical towers
- § Any combination of the above

2. *Permitted Operators:* Only authorized and trained persons are allowed to operate aerial lifts.

3. *Lift Controls:* Must be tested each day before use.

4. *Safety Harnesses, Lanyards, and Belts:*

- § Employees must wear harnesses when elevated in the aerial lift.
- § Lanyards must be attached to the boom or basket
- § Employees must not belt off to adjacent poles, structures, or equipment while working from an aerial lift.

5. *Basket Use:*

- § Always stand firmly on the floor of the basket.
- § Do not sit or climb on the edge of the basket
- § Do not use planks, ladders, or other devices for work position or additional working height.

6. *Brakes and Outriggers*: Set brakes and use outriggers.
7. *Movement Prohibited with Elevated Boom*: Do not move the aerial lift with the boom elevated and employees in the basket, unless the equipment is specifically designed for this use.

Compressed Gas Cylinders

1. *Content Markings*: Must be clearly indicated on the outside of each cylinder.
2. *Cylinder Transportation and Storage*:
 - § Always keep in an upright position.
 - § Never leave lying on the ground or floor.
 - § Never use as rollers or supports.
3. *Cylinder Valves*:
 - § Protect with caps.
 - § Close when not in use.
4. *Leaking or Defective Cylinders*:
 - § Remove from service promptly.
 - § Tag as inoperable.
 - § Place in an open space removed from the work area.
5. *Oxygen Cylinders and Fittings*: Keep away from oil or grease.
6. *Hoisting Cylinders*: During this process, cylinders must:
 - § be secured in a cradle, sling-board, or pallet; and
 - § not be lifted from one vertical level to another with valve protection caps

Cranes

1. *Competent Person*: Must inspect all cranes before and during use to ensure they are in safe operating condition.
2. *Monthly Certification Inspection and Record*: Required for each crane, including Date, inspector signature, and crane identifier.
3. *Annual Inspection for Hoisting Machinery*: Must be made by a competent person or by a government or private agency, and records must be maintained.
4. *Swinging Loads*: Never swing loads over the heads of workers.
5. *Riding Prohibited*: Never ride hooks, concrete buckets, or other material loads being suspended or moved by cranes.

6. *Hand Signals*: Crane operators must follow the applicable ANSI hand signal standard for the type of crane in use.
7. *Tag Lines*: Must be used to control loads and keep workers away.
8. *50 KV Electrical Lines*: Keep loads, boom, and riggings at least 10 feet from energized electrical lines rated 50 kV or lower unless:
 - § the lines are de-energized; or
 - § applicable OSHA regulations are followed.

(Note: For electrical lines in excess of 50 kV, the required distance is 10 feet, plus 0.4 inches for each 1 kV over 50 kV, or twice the length of the insulator, but never less than 10 feet.)

9. *Level Surfaces*: Cranes must always be:

- § operated on firm, level surfaces; or
- § stabilized through the use of mats or pads.

(Note: The stability and evenness of surface is especially important in cases of near-capacity lifts.)

10. *Protective Barricades*: Must be used to block access to areas within the swing radius of the rear of the rotating superstructure of the crane to prevent employees from being struck or crushed.
11. *Suspended Personnel Platforms*: If platforms are lifted with a crane, *numerous* additional requirements apply (see 29 CFR 1926.550(g) for specifics).
12. *Inspection of Rigging Equipment*: Required for chains, slings, wire rope, hooks, etc., before use on each shift to ensure safety (defective rigging and equipment must be removed from service immediately).
13. *Job or Shop Hooks*: Must not be used (including makeshift fasteners made from bolts, wire, etc.).
14. *Removal of Wire Rope from Service*: Required if any of the following conditions apply:
 - § wear of one-third the original diameter of outside individual wires
 - § kinking, crushing, bird caging, heat damage, or any other damage resulting in distorting of the rope structure
 - § in running ropes if there are:
 - six random distributed broken wires in one lay; or
 - three broken wires in one strand or one lay

- § in stranding ropes if:
 - more than two wires are broken in one lay in sections beyond end connections; or
 - more than one wire is broken at an end connection

Electrical

1. *Live Electrical Parts*: Protect against accidental contact by the use of cabinets, enclosures, location, or guarding (ensure that cabinet covers are replaced).
2. *Working Space*: Keep clear and accessible space around electric equipment and distribution boxes.
3. *Circuit Breakers, Switch Boxes, and the Like*: Must be legibly marked to indicate their purpose.
4. *Ground-Fault Circuit Interrupters*: Required for all 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites if the outlets are:
 - § in use by employees; and
 - § not part of the permanent wiring of the building or structure.

(Note: [A] If the prime contractor has not provided this protection with GFCI receptacles at the temporary service drop, portable GFCI protection must be provided; [B] an assured equipment grounding conductor program may be used instead of this GFCI protection; and [C] this GFCI protection is Additionally to any other requirements for electrical equipment grounding or double-insulated protection.)

5. *Extension Cords*: Must comply with the following:
 - § Be of the three-wire (grounded) type;
 - § Be designed for hard or extra hard usage (Type S, ST, SO, STO, or SJ, SJO, SJT, SJTO);
 - § be kept in good condition, along with strain relief devices/clamps; and
 - § not have ground prongs removed.
6. *Lamp Bulbs*: Must be protected against breakage, if used in lamps for general illumination.
7. *Electrical Cords*: Cannot be used to suspend temporary or portable lights unless designed for suspension and for hard or extra hard usage.

8. *Proximity to Unguarded Circuits:* Employees will not work close enough to any Electrical power to make contact unless the circuit has been:
 - § de-energized
 - § grounded; or
 - § guarded by insulation

9. *Lock-out/Tag-out:* Equipment or circuits that are de-energized must be locked out and tagged out, and tags must plainly identify the equipment or circuits being worked on.

10. *Assured Grounding Equipment Program:*
 - § Required if the employer uses assured equipment grounding (versus ground-fault circuit interrupter) to provide employee electrical grounding protection.
 - § Must include:
 - all cord sets, receptacles, and cord/plug connected equipment and tools
 - a written program;
 - quarterly testing;
 - recording of each test by logging, color coding, etc; and
 - the designation of a competent person to run the program.

Excavation and Trenches

1. *Cave-in Protection:*
 - § Required for:
 - any excavation or trench 5 feet or more in depth; and
 - any trench less than 5 feet in depth with potential for cave-in

 - § May be accomplished through shoring, sloping, benching, or the use of Hydraulic shoring, trench shields, or trench boxes.

 - § Specific requirements of each system are dependent on the soil classification as determined by a competent person.

2. *Required Inspection by “Competent Person”:*
Inspect each excavation/trench:
 - § daily before the start of work;
 - § after every rainstorm or other hazard increasing the risk of a cave-in; and
 - § as needed throughout the shift.

3. *Means of Egress:* Must be provided in trenches 4 feet or more in depth so that no more than 25 feet of lateral travel is needed for any employee in the trench.

4. *Spoil Piles/Equipment*: Must be kept at least 2 feet from the edge of the trench or excavation.

Fire Prevention

1. *Equipment Access, Inspection, and Maintenance*: Make sure that all fire-fighting equipment is:
 - § accessible and easy to locate;
 - § inspected periodically; and
 - § kept in good operating condition (an annual service check and monthly visual inspections are required for fire extinguishers).
2. *Equipment Awareness*: All employees must know the location of fire-fighting equipment in the work area and have knowledge of its use and application.
3. *Safety Can Usage*: Use only approved safety cans for handling or storing flammable liquids in quantities greater than one gallon (for less than one gallon, the original container may also be used).
4. *Heat-Producing Equipment*: When heat-producing equipment is used:
 - § keep the work area clear of all fire hazards and flammable materials;
 - § do not use a salamander or other open-flame device in confined or enclosed structures without proper ventilation;
 - § ensure that fire extinguishers are available;
 - § vent heaters to the atmosphere; and
 - § locate heaters an adequate distance from walls, ceilings, and floors.
5. *Prohibition of LPG Storage*: Do not store LPG (liquefied petroleum gas) in Buildings.

General Workplace Safety Rules

1. *Reporting Hazards and Injuries*:
 - § Promptly report unsafe conditions to your immediate supervisor.
 - § Promptly report all injuries, accidents, and “near misses” to your immediate supervisor.
2. *Eye and Face Protection*: Use safety glasses, goggles, or face shield if there is a danger from flying objects or particles (whenever there is grinding, chipping, burning and welding, etc.) or from hazardous chemical splashes.
3. *Proper Dress*: Wear appropriate work clothes, gloves, and shoes or boots. Do not wear loose clothing and jewelry.

4. *Safety Guards*: Operate machines or other equipment only if all guards and safety devices are in place and in proper operating condition.
5. *Equipment Maintenance*: Keep all equipment in safe working condition. Never use defective tools or equipment. Report any defective tools, or equipment to immediate supervisor.
6. *Proper Use and Care of PPE*: Wear or use any personal protective equipment (PPE) when required..
7. *Lock-Out/Tag-Out*: Perform lock-out/tag-out (or disconnect power) before maintaining, unjamming, or adjusting any machinery or equipment.
8. *Aisle/Walkway Passage*: Do not leave materials in aisle, walkway, stairway, work areas, or roadways.
9. *Housekeeping*: Practice good housekeeping at all times.
10. *Required Training Before Use of Equipment*: Training on equipment is required before unsupervised operation.
11. *Complete Compliance*: Comply with all government regulations and all company safety rules.

Housekeeping

1. *Critical Role of Housekeeping*: Recognize that housekeeping provides the foundation for a safe work environment by helping to prevent accidents and fires, and creates a positive attitude in the work area.
2. *Material Storage*: Pile or store materials in a stable manner to prevent falling.
3. *Removal of Debris*: Remove combustible scrap, debris, and garbage at frequent Intervals.
4. *Safe Passage for Critical Areas*: Keep stairways, walkways, exit doors, and the area in front of electrical panels and fire-fighting equipment clear of materials, supplies, trash, and debris.

Industrial Hygiene and Occupational Health

1. *Toilet Facilities*: Must be provided as required for the number of workers.
2. *Potable Water*: An adequate supply must be provided (use of a common drinking cup is prohibited).
3. *Provisions for Medical Attention*: Provisions must be made before beginning the project to ensure that:
 - § prompt medical attention is available in case of serious injury (including provisions for transportation and communications); and
 - § a person with a valid first aid certificate will be available to render first aid if no medical facility is “reasonably accessible” to the work-site (i.e., is no more than 4 minutes away for any life-threatening situations and no more than 15 minutes away for less threatening situations).
4. *Protection from Harmful Gases and Fumes*: Must be furnished through proper ventilation or personal respiratory equipment.
5. *Demolition Work and Asbestos/Lead Exposure*: Required assessment for lead and asbestos exposure with demolition work, particularly if drywall, painted surfaces, or abrasive blasting or grinding is involved.
6. *Fit Working Condition*: Employees must report each morning in fit condition to work and not be intoxicated, hungover, or otherwise impaired because of personal habits.

Ladders

1. *Competent Person*: Must identify unsafe conditions involving ladders through periodic inspection.
2. *Structural Defects*: Ladders with structural defects must be immediately removed from service and repaired or replaced.
3. *Unstable or Uneven Surfaces*: Straight ladders used on unstable, uneven, or wet surfaces must be tied off, held, or secured for stability.
4. *Portable Ladder Side Rails*: Must extend at least 3 feet above the upper landing accesses.
5. *Top Step of Stepladders*: Never use as a step.

Miscellaneous

1. *Protruding Reinforcing Steel*: Must be guarded to eliminate any impalement hazard for falling employees.
2. *Enclosed Chutes*:
 - § Required if material, trash, and debris are dropped more than 20 feet outside the exterior walls of a building.
 - § Must include a substantial gate near the chute's discharge end and guardrails at the chute opening where workers drop material.
3. *Training and Equipment for Servicing Large Truck Wheels*: Must be done by trained employees that use a cage or other restraining device, plus an air line assembly consisting of a clip-on chuck, gauge, and length of hose.
4. *Forklift Operation*: Allowed only by trained employees.

Motor Vehicle and Mechanized Equipment

1. *Required Inspections*: For all vehicles and equipment at the beginning of each shift to ensure that they are in safe operating condition.
2. *Unattended Equipment Next to Highway*: If left unattended at night in normal use, must have one of the following:
 - § lights or reflectors; or
 - § barricades with lights or reflectors.
3. *Parking Brakes*:
 - § must be set when equipment is stopped or parked.
 - § must chock wheels as well if equipment is on incline.
4. *Earth-Moving or Compaction Equipment*: Must not use with an obstructed rear unless:
 - § the vehicle has an audible reverse signal alarm; or
 - § an observer says it is safe to back up.
5. *Vehicle Condition*: Must comply with the following:
 - § horn, turn signals, service, parking, and emergency brake system must be fully operational.
 - § seats must be firmly secured for the number of persons carried (passengers must ride in seats).
 - § seat belts must be properly installed
6. *Windshields*: Must be made of safety glass for all vehicles with cabs.

7. *Material Handling Equipment*: Must be equipped with rollover protective structures.

Personal Protective and Related Equipment (PPE)

1. *Required PPE Usage*: Use on any job for which there is potential exposure to hazardous conditions. (Equipment requirements will be reviewed by supervisor/foreman, etc.)
2. *Eye and Face Protection*: Wear goggles, face shields, helmets, etc., as needed for employee protection.
3. *Hard Hats/Safety Shoes*: Wear at all times when needed.
4. *Gloves, Aprons, and Boots*: Use when necessary for protection against acids and other chemicals that could injure skin.
5. *Respiratory Equipment*:
 - § Often needed for protection against toxic and hazardous fumes and dusts.
 - § Proper equipment selection for a particular hazard must be verified by supervisors.
 - § Only MSHA/NIOSH-approved equipment may be used.
6. *Hazardous Noises*: Must be reduced to a safe level through (preferably) controlling exposure or through the use of PPE.
7. *Garments for Flagmen*: Flagmen will wear a red or orange warning garment while flagging; reflecting garments will be worn at night.

Safety Railings and Other Fall Protection

1. *General Rule—Six Foot Threshold*: All open-sided floors and platforms 6 feet or more above the adjacent floor/ground level must be guarded by:
 - § a standard railing (top and mid rail, toe board if required);
 - § a safety net system; or
 - § a personal fall arrest system (harness, lanyard, lifeline).(Note: Scaffolds generally require fall protection for distances of 10 feet or more.)
2. *Breaks in Elevation*: A stairway or ladder will be provided at any point of access Where there is a break in elevation of 19 inches or more.
3. *Handrails/Stair rails*: Required to guard all stairways of 4 or more risers or that are

- greater than 30 inches in height.
4. *Floor Hole/Opening Created during Work*: If greater than 2 inches in its least dimension, a cover or safety guardrail must be installed immediately.
 5. *Safety Nets*: Required if:
 - § workplaces are more than 6 feet above the ground, water, or other surfaces; and
 - § the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts are impractical.
 6. *Adjustment of Lanyard*: Must provide for not more than a 6-foot fall, and all tie-off points must be at least waist high.

Scaffolds

1. *Competent Person*:
 - § Must supervise erecting, moving, dismantling, or altering of any scaffold.
 - § Must determine feasibility of fall protection for employees erecting or dismantling supported scaffolds (must be provided if feasible and does not create a greater hazard).
2. *Standard Guardrails (Including Top rail and Midrail)*: Must be installed on all open sides and ends of scaffold platforms or work levels more than 10 feet above the ground, floor, or lower level.
3. *Fall Protection for Scaffolds*:
 - § Required to protect employees from falls of 10 feet or more through either a personal fall arrest system or a guardrail system.
 - § Specific scaffold types require specific types of fall protection:
 - (1) boatswain chairs, catenary scaffolds, float scaffolds, needle beam scaffolds, and ladder jack scaffolds require fall arrest systems;
 - (2) single-point or two-point suspension scaffolds require *both* a personal fall arrest system and a guardrail system;
 - (3) crawling boards (chicken-ladders) require a personal fall arrest system, a guardrail system, or $\frac{3}{4}$ -inch-diameter grabline securely fastened beside each crawling board; and
 - (4) self-contained adjustable scaffolds require a guardrail system if the platform is supported by a frame structure and both a personal fall arrest system and a guardrail system if the platform is supported by ropes.
4. *Minimum 38-Inch Toprail and Fall Protection*: Required for guardrails

- manufactured or placed in service after January 1, 2000, if the guardrail is the primary means of fall protection (36-inch guardrail generally is acceptable if the toprail is not to be used for fall protection).
5. *Standard Railings*: Required on all open sides and ends for all scaffolds 4 feet to 10 feet in height with a minimum horizontal dimension in any direction of less than 45 inches.
 6. *Full Platform Planking*:
 - § Required at all working levels.
 - § Planking must:
 - be laid tight with no more than 1 inch spaces between planks;
 - overlap at least 12 inches; and
 - extend over end supports 6 to 12 inches.
 7. *Front Platform Edges*: Must be no more than 14 inches from the face of the work (exception: plastering/lathing may be 18 inches).
 8. *Height of Mobile Scaffolds*: Must not exceed 4 times their minimum base dimension.
 9. *Prohibition on Overloading Scaffolds*: Scaffolds must not be loaded beyond their capacity.
 10. *Use of Scaffold Components*: Must not be used as tie-off or anchor point for fall protection devices.
 11. *Platforms Located More Than Two Feet Above or Below Access Point*: Require portable ladders, hook-on ladders, attachable ladders, integral prefabricated scaffold frames, walkways, or direct access from another scaffold or structure.
 12. *Cross-Braces*: Must not be used as means of access to scaffolds.
 13. *Scaffolds and Energized Lines*: Scaffolds that are erected, used, or moved and any conductive material on them must keep at least:
 - § 3 feet from insulated lines of less than 300 volts; or
 - § 10 feet (plus additional specified distances depending on the power level) from any other insulated or uninsulated lines.

Tools

1. *Defective Tools*: Remove from service immediately.
2. *Safety of Electric Power Tools*: Required to be the grounded type or to be double insulated.

3. *Setting Down Power Tools*: Turn tools off and stop their motion before setting them down.
4. *Disconnecting Tools*: Required before changing drills, blades, or bits or attempting repair or adjustment.
5. *Attending to Tools*: Never leave a running tool unattended.
6. *Guards for Saws*: Power saws, table saws, and radial arm saws must have operational blade guards installed and used.
7. *Prohibition on Use of Unsafe or Defective Hand Tools*: Includes sprung jaws on wrenches, mushroomed heads of chisels, or punches, cracked or broken handles of any tool, and any other unsafe conditions.
8. *Required Guards for Portable Abrasive Grinders*: Must cover the upper and back portions of the abrasive wheel (wheel speed ratings must never be less than the grinder RPM speed).
9. *Compressed Air Pressure for Cleaning*: Must be reduced to less than 30 psi and performed only with effective chip guarding and proper PPE.
10. *Valve for Abrasive Blasting Nozzles*: Must be of the type that is held open manually.
11. *Use of Powder-Actuated Tools*: Only trained employees will operate powder-actuated tools.
12. *Compliance with OSHA and ANSI Standards for Employee Tools*: Any employee-furnished tools must meet all OSHA and ANSI requirements.

Welding and Brazing

1. *Combustible Materials*: Clear from the area around cutting or welding operations.
2. *Welding Helmets and Goggles*: Wear for eye protection and to prevent flash burns.
3. *Eye Protection*: Wear to guard against slag while chipping, grinding, and dressing of welds.
4. *Electrode Holders*: Must be specifically designed for arc welding.
5. *Full Insulation*: Required for all parts subject to electrical current.

6. *Current Capacity of Ground Return Cable:* Must equal or exceed the maximum output capacity of the arc welding unit that it services.
7. *Placement of Cables, Leads, Hoses, and Connections:* Must not create fire or tripping hazards.

DISCIPLINARY POLICY

Zolutions, LLC wants its employees to work in a positive, productive atmosphere. However, employees who violate safety rules must be disciplined in order to protect their own safety and the safety of their co-workers. Depending on the severity and frequency of a safety violation, an employee may be:

- § immediately discharged
- § suspended; or
- § given a written warning.

The following disciplinary guidelines classify violations according to their seriousness (Group A, B, and C), and certain penalties are suggested for each group. Unsafe conduct by an employee may violate several provisions of the different groups. This list is intended to suggest examples of inappropriate behavior. It is not a comprehensive list of all safety violations for which an employee may be disciplined or discharged.

The following disciplinary policy does not in any way bind Zolutions, LLC to follow a particular course of conduct. Zolutions, LLC in its sole discretion may change these policies at any time. In addition, nothing in the policies changes the at-will nature of employment with Zolutions, LLC. An employee may still be terminated with or without cause, with or without notice, at the option of either Zolutions, LLC or the employee, except as otherwise provided by law.

Violation Classification Groups

Group A

- 1. Deliberate violation of any security or safety rules.**
2. Being intoxicated or under the influence of any controlled substances while at work.
3. Deliberate or reckless misconduct that endangers the life or safety of others.
4. Possession of alcohol or illegal drugs on Zolutions, LLC's premises.
5. Deliberate destruction of or damage to Zolutions, LLC's property
6. Deliberate falsification of any documents related to safety matters.
7. Fighting or deliberate harmful contact with co-workers.

Group B

1. Negligence that damages Zoolutions, LLC's property.
2. Negligence that endangers the safety of others.
3. Unintentional safety violations that endanger the safety or health of others.
4. Failure to report conditions that one believes to be unsafe.
5. Smoking or eating in unauthorized areas.
6. Speeding or unsafe operation of a forklift or any other Zoolutions, LLC's vehicle.
7. Driving a forklift or any other machinery without required approval.
8. Failure to properly record safety information for which one is responsible.
9. Improper refusal to obey a supervisor's safety instructions.
10. Any belligerent or antagonistic conduct toward co-workers, supervisors, or customers.

Group C

1. Violations of personal protective equipment (PPE) policy that **does not** result in injury to oneself or others.
2. Poor grooming or lack of cleanliness.
3. Poor housekeeping.
4. Failure to participate in group safety meetings.
5. Failure to properly and immediately report any accident or injury.
6. Failure to properly or immediately report any accident involving Zoolutions, LLC's equipment.
7. Failure to perform inspections of tools or machinery.
8. Failure to report machine or tool deficiencies.
9. Failure to learn Zoolutions, LLC's safety rules and regulations.

DISCIPLINARY PENALTIES

The following list provides a *general guide* for disciplinary actions for the above violations.

	1 st Offense	2 nd Offense	3 rd Offense
Group A	<u>Immediate discharge</u>		
Group B	Warning or suspension	Discharge	
Group C	Warning	Warning or suspension	Discharge

WRITTEN WARNINGS

Written warnings may help employees know where they stand and improve their performance. Zolutions, LLC attempts to issue written warnings that include the reasons for the supervisor's dissatisfaction. Warnings usually include a statement of the actions you need to take or results that need to be achieved to avoid further problems. However, the written warnings do not legally obligate or bind Zolutions, LLC or alter the at-will nature of the employee's employment with Zolutions, LLC. An employee who has received a warning may still be terminated with or without cause, and with or without notice, at any time.

Any employee who receives a written warning must immediately acknowledge receipt by signing the warning. An employee who disagrees with the written warning may discuss his or her reasons for doing so with the supervisor. It is generally best to inform the supervisor of any error at the time the warning is issued. In fact, there is a place on the form for the employee to do so. Any employee who believes that a supervisor has not responded fairly to the employee's comment may contact Tamara S. Crooks.

DISCIPLINARY NOTICE TO EMPLOYEE

Zolutions, LLC

date

employee name

First Notice ____

Second Notice ____

days suspended (if applicable)

department

We believe that an employee wants to know if he or she is violating Zolutions, LLC policy or failing to follow Zolutions, LLC’s rules. This disciplinary notice is to provide you notice of a violation of Zolutions, LLC’s policy. However, Zolutions, LLC is not obligated to provide any warning or to retain an employee once a warning has been given. All employees are employed at will. “At-will” employment means that an employee can be terminated with or without cause, with or without notice, at any time, at the option of either Zolutions, LLC or the employee.

Your conduct is not in keeping with Zolutions, LLC’s practices, standards, and policies for the following reasons: (Indicate specific standards and policies with which the employee has failed to comply.)

Suggestions for improvement:

Employee comments: (Note: An employee should state his or her disagreements with the warning in writing.)

Copy received by:

employee signature

supervisor's signature

date

Copy to employee file _____

CERTIFICATION OF EMPLOYEE

I have received a copy of Zolutions, LLC’s Health and Safety Plan that outlines Zolutions, LLC’s policies and employee responsibilities concerning safety, including disciplinary policies for violation of safety rules and regulations. I will familiarize myself with the Zolutions, LLC’s Health and Safety Plan and will comply with all of its provisions. I understand and agree that Zolutions, LLC has the right to change, amend, modify, or withdraw any provision of the Zolutions, LLC’s Health and Safety Plan without notifying me before the effective date of any amendment, modification, or withdrawal.

I understand that the Zolutions, LLC’S Health and Safety Plan is not a contract of employment and Zolutions, LLC has the right to follow or deviate from the policies in the Zolutions, LLC’S Health and Safety Plan in Zolutions, LLC’s sole and exclusive discretion. I also understand that the Zolutions, LLC’s Health and Safety Plan does not change the nature of my “at-will” employment with Zolutions, LLC’s “At-will” employment means that I can be terminated with or without cause, with or without notice, at any time, at the option of either me or Zolutions, LLC.

By my signature below, I agree to the terms of this Certification and also agree to follow the policies and procedures contained in the Zolutions, LLC’s Health and Safety Plan.

Employee signature

date

Zolutions, LLC date
