UNGER
CONSTRUCTION CO.

Unger Construction New Hire/Rehire Safety Orientation

Welcome to the Unger Construction family of employees. Starting as a family business, in 1927, safety has been part of our fundamental culture. With respect to safety, we treat employees and subcontractors as part of our extended family. Safety at Unger Construction isn't about money, insurance savings, or mandatory requirements set forth by governmental agencies. To us, safety is about people and making sure at the end of the day they go home in good health to their family and friends.

I expect you and your teammates to work safely all day every day. I don't want you to start working in the field until you have a fundamental understanding of our employee safety policies and our safety excellence expectations.

Summaries of our policies and procedures are provided in this orientation package. Your initials and signature ensure you have read and fundamentally understand our expectations. Don't rush through this package take the time to read each item. After each section is a blank for your initials. If you understand the content place your initials in the blank. If you have a question or concern leave the initial line blank and move to the next section. When you are finished someone will review the package to ensure your initials and signatures are placed where required. Blank initial lines will create a discussion that should answer your questions and clarify your concerns allowing you to place your initials on the line. Again this orientation is only a summary of the policies you will be provided with detailed training on each policy before you are expected to perform the task; the training is conducted using the "just –in-time method" and will depend on your assignment.

The Unger Way is important to us; it is one of the reasons for our success. To assist your understanding of the Unger Way we utilize a program to identify you as being new to the Unger family. This program is intended to help keep new Unger Construction employees whether experience journeymen or inexperienced apprentices safe and performing to the expectations of the Unger Way. New employees regardless of experience will work under the direction of Unger Constructions experienced personnel (mentor/coach). Your mentor/coach will help you learn your roles, responsibilities, safety procedures and the Unger Way quickly and in a stress free manner.

You will be issued an Orange hard hat to identify you as new to the Unger family. This Provides easy identification of you and other new to Unger employees. It also enables a wide network of informal mentors and coaches who have more Unger Way experience. New employees are typically enrolled in this program for the following durations; Journeyman 2-4 weeks, Apprentice 4-8 weeks. In essence you must be given enough time to demonstrate your knowledge and skills to perform tasks the Unger Way.

When your supervisor and your mentor agree you have demonstrated the following: 1) you do not take unnecessary risks, 2) you ask for help when it is needed, you understand your stop work authority and have intervened to stop unsafe acts or to correct unsafe conditions, 3) you work in a craftsman like manner delivering quality results, 4) you follow the safety policies and procedures, 5) you consistently wear PPE, 6) you participate in safety meetings, 7) you have a clear understanding of the Unger Way. Your supervisor will remove the orange hard hat and provide you with a white Unger Construction hard hat.

We are proud of our Company and our Safety Program and want to welcome you to Unger Construction. If you have any thoughts, comments or suggestions please call me (916) 325-5500 or email me mike@ungerconstruction.com

Thanks

Mike Mencarini - President

Our Safety Culture

Unger Construction is a team centered, learning oriented organization that promotes safety excellence through, awareness, empowerment and participation at all levels. Safety excellence at Unger Construction is defined as planning and executing our work with a passion for preventing injuries. Additionally, safety excellence includes: looking out for each other's safety; stopping and correcting unsafe acts or unsafe conditions on the spot. As well as coaching and developing those that are less safety savvy. Employees and subcontractors understand that the expectation is to eliminate injuries, not to hide them. Hiding injuries provides the illusion of safety excellence. We want Unger Construction and our subcontractors to achieve safety excellence. In order to achieve safety excellence, you need total commitment from the top down, the bottom up and both ways from the middle of our organization. In fact, we believe the truest measure of safety excellence is when peer to peer observations correct unsafe work behaviors and unsafe conditions without the need for management intervention.

Safety excellence at Unger Construction is defined by our planning and executing work with a passion for preventing injuries. Additionally, safety excellence includes: looking out for each other's safety, stopping and correcting unsafe acts or unsafe conditions on the spot, coaching and developing less safety savvy individuals. Our safety excellence goal is not limited to our corporate boundaries. We willingly partner with subcontractors, trade organizations and local universities to improve safety in the construction industry.

Setting the Safety Culture at the Jobsite

Unger Construction conducts a site specific orientation for all subcontractors, vendors and support personnel prior to granting access to the job site. This orientation communicates the property owner's expectations as well as Unger Construction's expectations. This orientation is conducted by supervisory personnel in a face-to-face format to ensure each worker fully understands the expectations.

During their jobsite safety orientation, subcontractors are made aware of our "Stop Work Card" program. The focus of the Stop Work Card is on changing behavior, not punishment. The primary purpose of the Stop Work Card is to allow people to freely stop unsafe activities from proceeding or happening at all. The secondary purpose is to eliminate undesirable behavior and to correct unsafe conditions.

Anyone can present our Stop Work Card, anytime there is a safety concern. When a Stop Work Card is presented work must stop immediately. Work cannot restart until a better, safer way of performing the work can be developed or it is determined that the current practice is appropriate. Subcontractors frequently comment they are surprised and pleased to learn that they are empowered to stop any work activity that concerns them. They recognize Unger Construction views our subcontractors as partners and truly value their opinions.

Prior to onsite mobilization, all subcontractors are required to develop and submit a safe work plan (some organizations call them job hazard analysis others call them pre-task plans) to be reviewed for their scope of work. Proof of training and/or certification must be submitted to Unger Construction's Project Manager for all subcontractor employees who will be working on the jobsite, before the subcontractors can start work. If this process is unfamiliar to a subcontractor, Unger Construction assists with developing a safe work plan.

Stop Work Cards

At Unger Construction, safety will not be compromised due to challenges with schedules, budgets or cost controls. The intent is to ensure each and every worker regardless of their affiliation fully understands and supports Unger's safety excellence objectives. Employees and subcontractors should understand the desire for safety excellence comes from the top of the organization and if they have a safety concern it will be addressed.

Unique Process

Our experience has shown punishment for safety violations can polarize an organization and reduce employee involvement in safety improvement efforts more so than the punishment was meant to correct. Thus, we are not punitive, we are interested in fact finding, not fault finding. Our lesson learned exercises are not focused on placing blame; they are focused on admitting our short comings, celebrating our successes and putting proper measures in place to achieve excellence. Every lesson learned exercise has a management system component, physical component and human component thereby ensuring blame cannot be inadvertently placed on anyone and to demonstrate that opportunities for improvement reach to all levels of the organization. The key to our success is how we handle failures and mistakes; getting over them fast, not dwelling on them and not letting others dwell on them.

We make continuous improvement in our safety program through; fact finding, not fault finding. Freely identifying our short comings, celebrating our successes and putting proper measures in place help make measureable progress in our safety excellence journey. We have not fully achieved safety excellence and in fact we might never be able to achieve it, but it is our goal and we are continuously making improvements. The safety of our people and our reputation are worth the effort.

General Information

Workers are given initial safety training when they are hired; during the Safety Orientation they receive an overview of our safety expectations, program elements and personal protective equipment. When you arrive at the jobsite you will be given a site specific orientation for that job site. Additional training will be provided as job conditions dictate. Instruction of the safety training may be accomplished in several different ways; using an experienced supervisor, a safety representative, or outside resources. Each situation is unique and must be evaluated individually.

Existing Training/Certification

Proof of training is important to Unger Construction. Training is required prior to performing tasks. The table below identifies topics that are common in construction. If you already have the training and your certification is current you will be given credit on Unger's training data base. Many of these programs have refresher or renewal training requirements. Which means your certification cards must be current. If you have previously had the training but have either lost your records or your certification cards have expired you are not allowed to perform the work. Before you can perform the work you will need to be retrained or recertified.

Forklift	Scissorlift	Boomlifts
CPR / First Aid	Respirators	Confined space
Scaffolding	Elevated work	Fall protection
Electrical work	Control of hazardous energies	Arc Flash
Excavation / trenching	Traffic control/flagger	Powder actuated tools
Rigging	Asbestos	Lead
Mold	Other	Other

Employee: _____

Confirmed by: _____ Date: _____

Copies of current certifications shall be made and submitted to Deanna McCormick for inclusion in the official training data base.

Overview

The general protection and safety to employees and the general public is of major importance to Unger Construction and all affiliated companies in the performance of our work. We make every reasonable effort to provide a safe and healthful place of employment and to control the recognized hazards of a construction project. Unger Construction is committed to providing a safe and healthy workplace for our employees. We consider the prevention of accidents to be an integral part of our operation, and to these ends, we have established a comprehensive Code of Safety Practices and Injury & Illness Prevention Program to assure the continued safety of our employees. These programs are designed to: identify and evaluate jobsite hazards, establish methods for correcting unsafe or unhealthful conditions, develop a system to communicate with our employees concerning safety matters, and to encourage feedback.

The responsibility and authority for the implementation of our Code of Safe Practices and Injury & Illness Prevention Program is assigned to each Project Manager and Supervisor. They are responsible for managing and enforcing the daily activities of these programs.

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Your Responsibility

As an employee of Unger Construction you are required to follow safe work procedures and to take an active part in protecting yourself, your fellow workers, and the general public. You are further required to participate in our safety meetings and to notify your Supervisor of any unsafe conditions you may believe exist. When in doubt, ask. With your cooperation, the job on which you are working will be a safe one. Our years of experience have proven that a safe job is an efficient and happy job. We want you to enjoy your work with us and to share in our pride of a job well done. Remember our motto: “Safety rules are your best tools”. We expect every employee to observe safety rules established for employee protection, abide by all laws and regulations, use safety equipment and devices as provided or required, and to always work in a manner which safeguards the employee and their fellow workers. In order to work safely, you need to be constantly aware of what is going on around you; be particularly watchful for recognized hazards. You must know the correct and safe procedures for your job. If you have any doubts stop and ask your Supervisor for guidance. By obeying the rules and procedures contained in the Code of Safe Practices and Injury Illness Prevention Plan, as well as any other special instructions received, and by using your own good judgment, you will do your part in the prevention of accidents and achieving safety excellence. Initial _____

General rules

Report to work in good physical and mental condition with proper clothing and personal protective equipment for the job. For example long pants, high visibility top colors, proper work boots, safety glasses, and a hard hat. (Shorts, tank tops, athletic shoes or sandals are prohibited). Learn and follow the specific safety rules that apply to your job. Before starting work you must understand your work assignment and make certain you are fully qualified for the job. Obey all policies/procedures, site rules, instructions, cautions, and warning signs. The appropriate procedures and practices are available at every job office via the “S” drive. Review these with your supervisor before you start. Some jobsites are subject to more stringent safety practices make sure you understand the specific requirements for your jobsite. Be aware of activities of other trades working near you and potential safety concerns created by their work. Watch for hazards, unsafe conditions, or unsafe practices and correct the condition if possible. Always report them immediately to your Supervisor.

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Safety And Health Policy Statement:

It is the policy of Unger Construction that Safety and Health are integral and essential parts of our operations. Our safety and health philosophy is based on the following principles. Employees are an invaluable resource to the company and their safety and well-being are essential to its continued success. Accidents are manageable and the occurrence of an accident means that we have not effectively managed our resources. All employees play a role in their own safety and the safety of those working around them. Management will be responsive to the expressed safety concerns of employees.

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Employee Compliance/Disciplinary Action Policy

At Unger Construction safety excellence is an expectation for each employee, each crew, each project and for our entire company. Every employee must adhere to our safety policies, procedures and be in full compliance with applicable governmental laws, rules and regulations. Employees that choose to conduct themselves in a manner that is inconsistent with these expectations will be held accountable for those decisions. The disciplinary action policy is intended to encourage employee compliance with our Code of Safe Practices and Injury Illness and Prevention Program. Employees found performing work in an unsafe manner that would endanger the employee or another employee shall be subject to discipline or termination.

Progressive disciplinary counseling is encouraged, beginning with a written warning, followed by a three day suspension without pay, followed by termination. However, the seriousness of some types of violations or other circumstances will necessitate elimination of some or all of the steps of progressive discipline. Repeat offenses, breaking the same rules, and multiple offenses, breaking more than one rule will be grounds for disciplinary escalation. Gross misconduct, such as egregious or conspicuously flagrant or objectionable behavior or actions by an employee, such as conduct that endangers the well being of other employees may render an employee ineligible for rehire.

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Communication Of Safety And Health Matters Reporting Violations

It is the responsibility of every employee who knows of any activity that violates our safety policies, procedures or may be in violation of regulations, to report such activity promptly. Employees can report their concerns to their supervisor, the projects safety manager or to the corporate safety manager. If the employee would like to remain anonymous every employee has free, unlimited access to our third-party anonymous and confidential incident reporting system, *MySafeWorkplace*. This beneficial service is available 24 hours a day, 7 days a week via a toll free number, 800-461-9330, or the internet at www.MySafeWorkplace.com. Upon submission of your report, you will be provided with a unique access code and will be asked to generate a personal password. It is very important that you document the pass codes, as you will use it to follow up on your report. You can call *MySafeWorkplace* (800-461-9330) or log in to www.MySafeWorkplace.com to check the status of your report. Once the unique access code and password are entered, you may continue anonymous dialogue with the Audit Committee Chair through the message board "Talk to Your Organization" section of the report.

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Protection of Employees.

Unger Construction will not tolerate any reprisals against persons who report safety issues and concerns. The identity of employees who report suspected safety violations will be treated as confidential and no reprisal may be taken against them. Confidentiality will be maintained to the extent possible, although limited disclosure may be necessary in some cases to effectively conduct an investigation. However, any reprisal will itself be considered a violation of our Code of Ethics. Unger Construction will take disciplinary action against any supervisor or employee who initiates such a reprisal.

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Hazard Control Measures

Hazard Control Measures can typically be separated into the following categories: Engineering Controls, Hazard Control Measures, Certified/Qualified or properly training workers, Personal Protective Equipment (PPE). Note this is a rank order listing of the hazard control measures. PPE is the last step, not the first step in hazard control. Our goal is to eliminate the hazard or minimize the hazard via engineering controls: guards, shields, ventilation, interlocks. Administrative Controls: are written procedures, work permits, safe work practices, training and in some instances performing the work at times of day where the hazard potential is far less. Personal Protective Equipment (PPE): Includes but is not limited to gloves, respirators and hearing protection.

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Common hazards that require either a PTP or JHA include but are not limited to:

Chemicals which can be liquid, powder, or gas: When working with chemicals it is important to first consult the material safety data sheet also known as the SDS. The SDS will tell you the type of hazard for example if the chemical is flammable, corrosive, or toxic. The SDS will also inform you of the potential route of exposure for example absorption, inhalation, or ingestion. The SDS will also tell you the proper personal protective equipment, first aid treatment, storage and handling requirements as well as recommended emergency procedures.
Electrical Contact Exposed and energized conductors must be avoided. Generally speaking we utilize the 10 foot clearance rule. People and materials must have a minimum free clearance space of 10 feet from exposed and energized conductors. Servicing electrical equipment requires specialized training. You are not allowed to work on or repair energized electrical equipment or tools without specific written permission from your supervisor.
Ergonomics: Strain/sprain injuries are commonplace in our line of work however, with proper planning, tools, techniques and body mechanics ergonomic injuries can be eliminated. Pre-task plans need to be completed before engaging in lifting, twisting, pushing, pulling, carrying or reaching activities.
Excavation/Trenching: The three primary concerns with respect to excavations and trenching are collapse of the walls, materials or equipment falling into the trench/excavation and inhalation risks from fumes that can collect or settle into the trench/excavation.
Confined Spaces: You must receive specific training before working in confined spaces. Confined spaces cannot be entered until they are determined to be safe. Check with your Supervisor or the confined space permit for any special precautions that may apply to your work.
Falls: which can include slips, trips, falling from an elevated work platform or falling to another level,
Fires: Welding, brazing, soldering, chipping, grinding, cutting
Lacerations: Blades, knives, sharp edges
Mechanical energy: Body part exposed to crushing, caught-between, cutting, tearing, shearing. Mechanical failure – exceeding capacity
Noise: Levels above 90db
Traffic Control: Pedestrians, client employees, workers, vehicles,
Struck by: Accelerated mass that strikes the body moving equipment, falling objects, projectiles
Temperature: Burns from hot/cold, Heat stress, Hypothermia

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Code of Safe Work Practices
The following information are summaries from our safe work practices, policies/procedures or from our Injury Illness Prevention Plan. We believe these summaries cover the more salient portions of each program however if you have questions or concerns you and your supervisor should review that specific program in detail. These rules are for your protection. You are expected to comply with them. We welcome your suggestions for preventing accidents and improving work methods. Initial _____

Access/Egress ramps and ladders shall be provided in frequently traveled passageways if the elevation break exceeds 18 inches. A minimum of 1 stairway shall be provided and maintained open at all times for structures that are equal to or greater than 3 stories or 36 feet. When using a ladder for primary access/egress when the number of employees exceeds 25 a second ladder must be installed.

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Accident Investigation the causes of unplanned, unwanted occurrences resulting in injury or damage are the same as those resulting in other economic loss. To utilize this experience, each supervisor must require his/her employees to report such occurrences to him/her. Each accident must be investigated as soon as possible by the immediate supervisor who has direct control over the employee or over the condition involved in the accident.

The incident report should be completed for each injury to a company employee and for all other types of accidents. Do not release information surrounding an accident to any agency other than our insurance carrier. If in doubt as to who is asking, refer the inquiry to the Division Safety Manager. The Safety Department will notify all public agencies requiring this information

All accident investigations should include the following information when applicable:

Name and age of injured.
Date and time of the accident.
Equipment being used at the time.
Primary cause.
Secondary cause.
Witness statements.
Had the employee violated a safety standard?
Had the employee had adequate instructions prior to starting the job?
Name of the employee's supervisor.
Name and telephone number of the hospital.
Name and telephone number of the doctor.

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Alterations/Modifications

All equipment shall be used in accordance to the manufacturers intended design and function and per their written instructions. Safety devices, covers, shields, interlocks and alarms shall be fully functional as the manufacturer intended for them. Equipment cannot be modified or altered in any way without written approval from the manufacturer or formal approval from a Professional Engineer registered in the State of California. Additionally, approval shall be received from Unger Constructions Director of Safety, Director of Risk Management and the Vice President of Operations.

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Asbestos

Before any employee is allowed to perform work in areas that are known to contain or are suspected of containing asbestos materials the must be trained in Asbestos Awareness. Asbestos awareness training is required for employees whose work activities may contact asbestos containing material (ACM) or presumed asbestos containing material (PACM) but do not disturb the ACM or PACM during their work activities. Training shall include the following information: Health effects associated with asbestos, types of asbestos, methods of recognizing/identifying asbestos, safe work practices, permissible exposure levels, and materials that could potentially contain asbestos. Each employee must demonstrate an understanding of the required training before being allowed to perform work. Just about every renovation project that Unger Construction works on will require a hazardous materials survey. However, as we perform work within a facility we will build a data base of materials that are known to contain asbestos and materials that are known to be free of asbestos.

There is no safe “build year” as back stock of asbestos materials entered construction well after it was banned from manufacturing. Additionally, the asbestos ban on American manufacturing firms did not affect overseas suppliers. Suspect materials are entering the workplace in new construction.

Hazardous Material Survey

Unger Construction requires hazardous materials surveys before demolition or renovation work begins. The survey shall include all of the following: A visual inspection of a facility or a portion thereof for suspect materials and sampling and laboratory analysis of any suspect materials found for the presence of asbestos. Survey will also furnish a written report that includes: a description of the area(s) visually inspected, a detailed description of any suspect material sampled, the results of any laboratory analysis of suspect materials, the method of analysis, and the total amount of asbestos containing material. Typically a floor or roof plan is included with the report to reference the written information visually.

Asbestos is a naturally occurring mineral that is found throughout the world. Asbestos has several characteristics that make it desirable for many commercial uses. The fibers are extremely strong, flexible, and very resistant to heat, chemicals and corrosion. Asbestos is also an excellent insulator and the fibers can be spun, woven, bonded into other materials, or pressed to form paper products. For these reasons and because it is relatively inexpensive, asbestos has been widely used for many years and found in over three thousand different commercial products.

Exposure to asbestos fibers can cause serious health risks such as lung cancer, asbestosis, mesothelioma, and cancer of the stomach and colon. The major risk from asbestos comes from inhaling the fibers. Asbestos is composed of long silky fibers that contain hundreds of thousands of smaller fibers. These fibers can be subdivided further into microscopic filaments that will float in the air for several hours.

Although exposure to asbestos is potentially hazardous, health risks can be minimized. In most cases the fibers are released only if the ACM is disturbed. Intact and undisturbed asbestos materials do not pose a health risk. The mere presence of asbestos does not mean that the health of employees is endangered. When ACM is properly managed, release of fibers into the air is prevented or minimized, and the risk of asbestos related disease can be reduced to a negligible level.

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Bi-weekly safety meetings (all hands)
Safety meetings are held bi-weekly (some circumstances require more frequent meetings) and are for your benefit. You are encouraged to participate and offer suggestions for improving safe work conditions or practices. Your suggestions are important to us. Concerns involving other trades will be addressed by your supervisor.

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Bloodborne Pathogens
Bloodborne pathogens are disease causing microorganisms that may be present in human blood and other body fluids. Bloodborne pathogens are transmitted when the pathogens from infectious body fluids enter the bloodstream through cuts, breaks in the skin, they can also enter through mucus membranes such as the mouth or eyes. All body fluids should be considered potentially infectious (including but not limited to blood, saliva, vomit). During normal construction activities employees do not have an occupational exposure to bloodborne pathogens. With that said there is a risk of contamination during unexpected injury or illness. Therefore the risk of exposure increases for those employees that have been trained in first aid and CPR. Due to the nature of their work such exposures only occur during tasks that are collateral to their normal job functions.

First aid practitioners are the only job classification with potential exposure to bloodborne pathogens. By definition first aid practitioners are reasonably anticipated contact between your skin, eyes or mucous membranes, with blood, or other body fluids.

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Communication of Safety and Health Matters Daily Discussions, PTP, JHA's, Lessons Learned, Audits
Safety discussions should be held daily, just as schedule and cost discussions are held daily.
Pre-task planning (PTP) sessions should include employee feedback specifically how things are going and any continuous improvement efforts that should be undertaken. Lessons learned communications will be hand delivered to the field leadership team by the safety manager performing jobsite audits, for inclusion in daily safety communications. Job site audit findings will be shared with the field level leaders for inclusion in daily safety communications. Incident investigations and accident report findings will be shared with the field level leaders for inclusion in daily safety communications.

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Company Vehicles
Only authorized drivers (name listed on the approved driver list) are allowed to operate company vehicles. You must have a valid CA driver's license. Drivers must participate in the DMV pull program allowing the company to review your driving record. You must have and maintain a favorable driving record, as determined by the company.

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Confined Space
Employees must not enter a confined space without formal and documented training. All workers in confined spaces must have confined space awareness training with their records on-site. Confined spaces can be either low hazard or high hazard, both require documented permitting procedures. In order to be considered a confined space all of the following statements must be true:
a) the space is not designed for continuous human occupancy (rule of thumb lacking lights and HVAC controls)
b) whole body entry (placing ones arm or head into a space is not considered entering a confined space)
c) limited or restricted egress (full height doors permanent stairs are not considered limited access. Rule of thumb: if you close your eyes could you make it out of the area. Access hatches, ladders and crouching, crawling postures are considered limited or restricted egress.

Prior to entering the confined space an air quality sample must be taken and recorded. This is typically performed using a 4:1 air sampling tool. The air sampling tool must be "bump tested" with a 4:1 calibration gas before each entry to confirm the unit is functioning correctly. Confined spaces determined to be free of atmospheric hazards, engulfment, and entanglement can be reclassified as a low hazard confined space also known as a non-permit required space. Low hazard vaults or manholes require continuous forced fresh air ventilation or continuous air monitoring via the 4:1. Permit required confined spaces must have a baseline survey which is formally documented. All lines must be disconnected, blinded, or blocked to prevent transfer of hazardous materials into a confined space. Ventilation must be provided to prevent accumulation of toxic or hazardous materials. Effective communication shall be established between standby or monitoring employees, and confined space employees. Hazardous materials, chemicals, or gas cylinders should not be taken into confined spaces without adequate ventilation to maintain a safe environment.

Permit required confined spaces must have a documented rescue plan with the rescue equipment being on site and ready to use. Rescue equipment may include but is not limited to a tripod, retrieval mechanism, full body harness and a tether (rope). Permit required confined spaces must have a designated entry supervisor.

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Control of Hazardous Energies (also known as Lockout Tagout)
Lockout is required if the work being done requires a person to place any part of their body into an area where a danger zone exists. Locks and/or lockout devices must be attached to the energy control point. There may be multiple energy control points that affect work in a danger zone; each point must be identified and controlled. The lockout must provide complete energy isolation, without possible override Note: push-buttons, selector switches, interlocks, emergency machine off (EMO), software controls and other control circuit type devices are not energy control points. Work will not begin until all forms of hazardous energy are identified and controlled.

All employees and contractors must have individual locks and keys such that the individual is the **only** person who can open their lock. Supervisory or foremen locks intended to protect a group of workers are not allowed. Groups of workers must utilize either a lock box or a multiple user locking device. Any person entering the danger zone, for any length of time, must apply their own lock and tag to the energy isolating devices. In situations where it is impossible to install a lock or apply a locking device contact an Unger's Safety Director.

The rule of thumb - whenever a circuit breaker, disconnect, or valve is turned off a lockout device must be applied. Lockout devices must remain in place until all work is complete and the system is ready to return to service. With respect to demolition of electrical circuits, the lockout device must remain in place until the

conductor has been removed from the circuit breaker and the panel schedule updated to read “spare”. With respect to chemical, pneumatic, and hydraulic, service the lockout device must remain in place until the pipe or tubing has been removed and the outlet of the valve sealed with a welded fitting or other leak-tight, tamper-proof device and the supply valve labeled “normally closed”.

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Correcting Unsafe Conditions or Work Practices unsafe work conditions or work practices will be corrected in a timely manner, as determined by the severity of the hazard. Under no circumstances will personnel be required to, or permitted to, work under conditions which pose a clear or imminent hazard. Problems that cannot be corrected immediately will be assigned to the Responsible Person to ensure completion of the corrective action. Engineering controls will be used first to eliminate or minimize unsafe or unhealthy work conditions. If engineering controls are impractical or infeasible, administrative controls will be used. If engineering controls alone, or in combination with administrative controls cannot adequately minimize the hazard, personal protective equipment shall be used. Once corrected, written documentation of the action taken will be developed or obtained by the Responsible Person. When an imminent hazard exists which cannot be immediately corrected without endangering employees and/or property, the following steps will be followed:

1. Remove all potentially endangered employees from the area.
2. Provide employees responsible to correct the condition with necessary safeguards.
3. Correct the problem.
4. Document and date the corrective action taken. The documentation is to be completed by the Responsible Person or his/her designee. Documentation will be maintained on file by the Responsible Person.

Safe work rules, policies, practices and procedures will be reviewed at least annually and whenever new chemicals or equipment are introduced into the system, or when there is a process change. When changes are made, affected employees will receive additional instruction.

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Cranes

A Crane Lift Plan is required whenever a mobile crane lift is being performed. The Crane Lift Plan is to be completed by the respective party who will be performing the crane lift, and is submitted in conjunction with a Safe Work Plan, or a Job Hazard Analysis. The crane lift plan and supporting documentation shall be submitted to the Director of Safety for review and approval a minimum of five days prior to commencing work. Information to be included in crane lift plan is to include the following: type of crane and manufacturer, exact size and weight of the loads to be lifted, description of the rigging including their weight, the load chart for the crane, a diagram showing crane position and location around buildings, the height of the lift, the load radius, and boom length and angle for the entire range of the lift, the evacuation plan for areas under the lift zone, a barricading plan and traffic control for pedestrians and vehicles and the environmental conditions under which lift operations are to be stopped.

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Crisis Management

Each jobsite will have a crisis management program is to ensure employees and subcontractors have ready access to emergency medical care and are aware of the emergency action plan. This plan is design to minimize injury, loss of life, and loss of company resources. The overall reason to plan for an emergency is to provide a systematic approach to managing the crisis in an organized manner.

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Cylinders
Cylinders must be properly secured at all times to prevent shifting or toppling. Cylinders must be transported and stored in the upright position. Oxygen and Acetylene must be separated by 20 feet or a ½ hour fire wall at least 5' high when in storage. Regulator assemblies must be removed and the cylinders capped when not in use typically end of shift. Note: break and lunch times are exempted. Oxygen and Acetylene separated away from other combustible materials, particularly oil and grease.

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Electrical Cords
Electrical cords must be inspected before each use (daily). All electrical cords must be connected to a GFCI. Electrical cords that were designed with three prongs must have three prongs on each end. Cords with missing or damaged prongs must be taken out of service. Cords that have nicks in the outer layer of insulation (SO jacket) can be used as long as the insulation layer of the conductor is not damaged. If the conductor is exposed the cord needs to be removed from service and then cut in half with both cord caps being wrapped in red tape. Cord cap strain reliefs must have full mechanical contact with the outer layer of insulation (SO jacket). If the strain relief is loose or is in contact with the insulation of the conductor the cord must be taken out of service, red tape over both cord caps until it can be repaired.

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Electrical Equipment
Electrical room doors cannot be used to protect workers from electrical shock. Workers shall be protected from electrical shock by using either the control of hazardous energy program (commonly referred to as lock out tag out or LOTO) or by means of properly rated electrical personnel protective equipment (PPE). Room doors are not a method of lockout and they are not PPE.

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Elevated work
Use only well-built, undamaged ladders of the proper size and category suited for your work. They should be long enough so that side rails extend three (3) feet above the landing. Secure ladders from slipping/falling by setting feet properly and tying the ladder off at the top. The angle of the ladder should be 4:1. The base of the ladder shall be positioned one foot out for every 4 feet up. Always face the ladder. When going up or down and keep hands free of tools or materials. Report any improper or unsafe ladders to your Supervisor.
Before using scaffolds or other work platforms, check for overall safety, (i.e., proper planking, bases, and guardrails). Planks should be two inches by ten inches or larger, at least two planks wide, with overlapping supports of at least 6 inches at each end, and shall not overlap the end of an unsupported plank. All scaffolds must be fully planked and comply with any other site specific scaffolding procedures. Toe boards shall be used on elevated surfaces if personnel work or pass below. All interior floor openings protected by railings shall have toe boards. Do not use a single plank as a ramp to access work areas. Ramps must be at least 20 inches wide and have handrails if 7 1/2 feet or more in height.

Initial _____

Excavations
Excavations deeper than a shovel blade need an underground survey to locate utilities. Excavations require formal documented inspections every day. Daily inspection reports must be kept on file. Spoil piles must be stored > 2 feet from the edge of the excavation. Distance shall be measured from the toe of the spoils pile to the leading edge of the excavation. Excavations equal to or greater than 4 feet require a means of egress, stairway, ladder, ramp or other safe means of egress with no more than 25 feet of lateral travel for employees.
Excavations equal to or greater than 5 feet require protection (shoring, benching, sloping) to prevent cave in. Excavations equal to or greater than 4 feet will require a means to protect pedestrians and moving equipment /vehicles from the fall hazard. Do not enter or work in any un-shored trench or excavation where shoring or other protection from cave-ins is required. When working in trenches, stay away from the excavating equipment

and stay within the area of the shoring. No one should be permitted within the area of the swing radius of a backhoe. Keep alert for changing ground conditions or signs of possible movement. Exit trenches immediately if you feel unsafe. Report your concerns to your Supervisor or the competent person immediately. Workers working adjacent to an excavation equal to or greater than 7 ½ feet must have a means of fall protection. (see fall protection).

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Emergency Medical Plan

Each jobsite shall have a site specific emergency medical services plan. The plan shall be formally documented and kept on the jobsite such that it is available for all employees/subcontractors to review.

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Emergency Procedures

Each employee shall know their site specific emergency procedures and phone numbers. Make note of the location of emergency equipment such as fire extinguishers, eyewash, showers, first aid kits, and lifesaving equipment. If they are used, report their use to your Supervisor to ensure prompt replenishment.

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Electrical Safety

The electrical safety program at Unger Construction is closely linked to the following programs; High Voltage Electrical Safety, NFPA 70e, Control of Hazardous Energies (CoHE) also known as lock out tag out. These programs are intertwined and directly coupled to each other in fact much of the information is the same. In order to perform work on electrical systems you must have demonstrated competency with NFPA 70e and Control of Hazardous Energies.

Authorized/Qualified person means a person permitted to work on or near exposed energized parts who has been trained in and familiar with: The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment, The skills and techniques necessary to determine the nominal voltage of exposed live parts, The knowledge, skills and techniques to work safely on energized circuits, The proper use of special precautionary techniques, personal protective equipment, Insulating and shielding materials, and insulated tools, The clearance distances for work performed near overhead lines that are specified in the OSHA standard and the corresponding voltages to which the person will be exposed.

Unqualified Person - means a person with little or no training in avoiding the electrical hazards of working on or near exposed energized parts.

On or near means close enough to exposed line parts (by either personal contact or contact by tools or materials) for an employee to be exposed to any hazard they present.

Our high voltage electrical safety program is very restrictive. Authorization to work on or near high voltage electrical systems is issued on a very limited basis.

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Fall Protection

Working at elevations more than 7 ½ feet from a lower level requires fall protection. Safety harnesses shall be worn on any unguarded working surface above 7 1/2 feet. It is your responsibility to inspect your harness before each use and to report any defective equipment to your supervisor. Damaged or defective equipment must be taken out of service immediately and red tagged.

Passive fall protection systems are used to prevent someone from falling they include but are not limited to: guardrails, holes covers, positioning devices (the worker is leaning back and using both hands to perform work on a wall form or rebar cage) and a lastly a fall restraint.

Positioning devices must be rigged to prevent a free fall of less than 2 feet and should be anchored to a device capable of restraining 2 times the intended load or 3,000 lbs whichever is greater. Fall restraints are designed to prevent the worker from be able to reach the point of the fall hazard (can't jump off if they wanted to). In essence the fall restraint tethers the worker into a safe zone. The anchorage requirement for a fall restraint is 4 times the intended load. For example a person weighing 250 pound should be attached to an anchorage point that is capable of withstanding 1,000lbs.

Active fall protection systems are used to arrest a person that is in the act of falling. Active fall protection systems have 3 components a) full body harness b) tether (lanyard, yo-yo) c) anchor point (structural member or life line connected to structural members). Each active fall protection system must have all 3 components. We have 2 common types of tethers for our active fall protection systems 1) a decelerating lanyard (rip stop concept) and 2) a retractable lanyard often times referred to as a yo-yo. These devices perform a similar function however; their usage criteria are specific and unique. The free fall distance for these devices are different thus the requirements for the anchorage points are different. The free fall distance for a decelerating lanyard is typically 3 feet. Thus the anchorage point is required to withstand a load of 5,000lbs. Retractable lanyards typically limit the free fall distance to less than 1 foot thus the anchorage point is required to withstand a load of 3,000lbs. The typical height that a decelerating lanyard must be connected to protect the worker is approximately 16 feet from the object that would stop the fall (floor or equipment). Here's the math model typical anchorage point of the harness is 5 feet from the floor. Most decelerating lanyards are 6 feet long before deployment. The act of decelerating the fall requires 3 feet thus the lanyard grows 3 feet from its original length. Recommended safety clearance from the object is 2 feet. (5+6+3+2=16) Workers attached to an anchorage point lower than 16 feet will hit the object before the deceleration device can properly function. Retractable lanyards or Yo-yo's are popular because they can be used to attach to a lower more convenient point and they require a less stout anchorage point. Here's the math model for a Yo-yo. The anchorage point of the harness is 5 feet from the floor. Most Yo-yo's are 1 foot long before deployment. The act of decelerating the fall requires an additional 1 foot thus the Yo-yo becomes 2 feet long when deployed. Recommended safety clearance from the object is 2 feet. (5+1+1+2=9 feet) Yo-yo's have a distinct disadvantage in that the anchorage point must be directly above or below the worker to be in compliance with OSHA;'s maximum 4 foot free fall. Yo-yo's come in a variety of lengths ranging from 4 feet to 50 feet. Many Yo-yo's enable the worker to travel horizontally from the anchorage point a distance that could exceed the distance to the next level. Which means the worker could step off the edge and hit the next level before the Yo-yo's deceleration device knew the worker was falling. In this situation a horizontal life line should be utilized to ensure the anchorage point was directly above the worker. Most Yo-yo's have a deceleration device that activates if the fall exceeds 4.5 feet per second. Some roof pitches and some grade angles are not recommended for Yo-yo's because the worker could fall/slip at a rate that is less than 4.5 feet per second. Additionally, Yo-yo's have the potential for a swing fall hazard. Contact the safety department to ensure you are using the correct device for each application.
Note: when work is of short duration, measuring or inspection, **and** the fall exposure is limited **and** the hazards involved to install safety devices is impractical the fall protection standard can be temporarily suspended provided adequate risk control is recognized and maintained. (see your safety representative for proper documentation and protocol)
Emergency response plan The employer is also responsible for an emergency response plan. Employers must develop a plan that will provide prompt rescue in the event of a fall for employees that are not able to self-rescue.

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Fatigue Management
Virtually everyone experiences some level of fatigue from time to time. However, excessive fatigue while working impacts worker health, safety, productivity and quality. Many think fatigue and sleepiness is the same thing, there are not but they are related. Sleepiness is the tendency to fall asleep. Fatigue is the body and minds response to sleep loss, prolonged physical or mental activity.

Fatigue is more than feeling tired and drowsy. Fatigue is a state of mental and/or physical exhaustion which reduces a person's ability to perform work safely and effectively. Fatigue can occur because of prolonged mental or physical activity, sleep loss and/or disruption of one's internal body clock. Fatigue can be caused by factors which may be work related, non-work related, a combination of both and can accumulate over time. Shift workers are prone to sleep disturbances; this is particularly true for rotating shift schedules. Sleep during the day is often shorter, lighter and less restorative. Insufficient sleep will increase the levels of fatigue with each consecutive shift. The only cure for fatigue is sleep.

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Fire extinguishers

Fire Extinguishers must be formally inspected every month and require annual recertification. The certification expires one year from the stamped date. Fire extinguishers must be placed at each point of entry of each floor. Typically near stairwells, man lift or elevators staging areas. Size, classification and spacing requirements vary significantly based on the type of hazard and the authority having jurisdiction. Generally speaking low hazard areas can use smaller extinguishers and the spacing can be further apart. As a rule of thumb extinguishers with a rating of 2A (classification ABC) must be provided every 3,000 square feet. On large projects this requirement can be a challenge. Often times we have been able to use 20A's (classification ABC) placed at every point of entry to the floor as an official alternative means of compliance. Meet with your safety manager and/or the AHJ to determine if this will work for you. Under no circumstances shall a worker attempt to fight a fire that has passed the incipient stage, in essence a fire that requires 3 or more extinguishers to extinguish. Nor shall any worker attempt to enter a burning building to conduct search and rescue. These actions shall be left to the emergency service professionals.

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First Aid

Report all first aid incidents to your Supervisor as soon as practical. We want you to receive the best first aid care we can arrange. This may be provided by our prearranged medical facility. If you hold a current First Aid Card, advise your Supervisor/Safety Representative. You are encouraged to participate in any First Aid training that may be made available to you on this project.

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First aid kits / eyewash stations

First aid kits and eyewash stations are required for every job site. First aid kits must be audited weekly. Eyewash stations should be inspected monthly. Eye wash solution should be replaced per manufacturer's recommendations typically every 90 or 180 days.

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Flammable/Combustible Materials

All flammable liquids are to be stored only in approved, closed metal containers labeled "Flammable," and also include the identity of its contents, *i.e.*, gasoline, diesel, etc. Keep combustible waste materials picked up and properly disposed of regularly (*e.g.*, not less than daily). Use proper precautions when transferring fuel or refueling equipment. Stop motors; provide for grounding and bonding to dissipate static electricity. Do not smoke or allow open flame or any other source of ignition in the area. Keep containers close when not in use to eliminate accidental spillage. Welding, burning, and cutting of flammable liquid containers are prohibited even if the containers are empty. When working with flammable or combustible materials you should know the location and proper use of fire extinguishers.

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Floor/Roof Openings

Holes in walking surfaces that exceed 2 inches in diameter must be covered. The cover must be capable of supporting 400lbs or twice the weight of employees and equipment that may be imposed on one square foot of area whichever is greater. This gets complicated when equipment can be transported over the cover. Pallet jack,

scissor lifts can exceed 1,000lbs per square foot. To resolve this issue build a box cover to prevent equipment from driving over the cover. Covers must be secured to prevent unintentional shifting. Covers must be labeled with letter not less than one inch high stating “Opening – Do not remove”

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Forklifts or Powered Industrial Trucks

Vehicles used to carry, push, pull, lift or stack material that is powered by an electric motor or an internal combustion engine that are commonly referred to as forklifts, motorized hand trucks, pallet trucks and tugs have been categorized as Powered Industrial Trucks. Only employees and subcontractors who have successfully completed training, hold a current certification card for the particular unit and are authorized by their supervisor are allowed to operate a PIT. Operator training, evaluation and certification shall be conducted by designated personnel who have the knowledge, training and experience to train powered industrial truck operators and evaluate their proficiency.

To operate a PIT on an Unger Construction site the operator must have a valid certification card and be authorized by their supervisor. As the operator you are 100% responsible for the safe operation of the PIT. As the operator of the PIT you are responsible for the safety of the ground personnel working in or around your work area. You are responsible for signage and barricades to provide a safe working distance. No person will be allowed to stand or pass under the elevated portion of any PIT, whether loaded or empty. Passengers are not permitted to ride on powered industrial trucks.

There are numerous styles of PIT’s. Feature and functions vary greatly. Before operating a PIT read the owner’s manual and become familiar with the safety placards, decals, limitations and controls. Take the unit on a test drive before beginning work to become familiar with the controls and the response of the unit. Do not start working with the unit until you are confident in your abilities and the units’ features and limitations. While each lift may look different they all have one thing in common: the potential for serious injury if operated in an unsafe manner.

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General Waste Management

Work areas are to be kept free of excessive debris, waste materials and shall be maintained in a clean and orderly condition throughout the work day. Waste or scrap materials are to be removed and deposited into proper containers by those that generated the waste or scrap. Additionally, these materials will be stacked neatly and in such a way to ensure stability. Waste streams will be separated into the following categories: scrap materials that can be used on other projects, recycling such as metal, paper, plastics, mulch for wood products, rock/cement, solid waste and chemical waste.

Protruding nails, staples and other devices that could cause a laceration or puncture injury shall be withdrawn, bent over or covered in a means to prevent injury. Special practices are to be followed to dispose of oily rags, paint cans or any container that may have contained flammable liquids.

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Ground Disturbance

We strive to provide the safest possible conditions under which ground disturbance operations are carried out. Striking an underground utility could have catastrophic results. It is crucial that proper procedures are followed so that underground utilities are not damaged and people are not injured or killed. Ground disturbance includes scraping, digging, drilling, grading, ripping, saw cutting, jack hammering, dragging, probing and includes the removal of cement flatwork, or asphalt. As the ground disturbance evolves in depth, greater than 2 feet deep, workers shall transition from this policy to the Trenching and Excavation policy. Before trenching, excavating, saw cutting, or digging, Unger Construction’s policy is to perform an underground survey using an independent third party survey firm.

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Guardrails –Vs-Handrails – handrails and guardrails are sometimes used interchangeably but they should not be. Handrails are horizontal or sloping rails intended for grasping by the hand for guidance or support. Guardrails are a building component located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall to a lower level. Guardrails are required anytime the fall potential exceeds 7 ½ feet. The top rail of a guardrail must be between 42-45 inches from the walking surface; these are hard dimensions and not estimates. The mid rail must be halfway between the top rail and the walking surface. Guardrails must resist a load of 200 lbs. in all directions except up.

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Heavy Equipment

Only authorized personnel, who are trained, certified or licensed for that particular piece of equipment, shall operate the equipment. The operator is primarily responsible for the safe operation of equipment. They must have knowledge of the safety regulations applicable to the equipment and its operation. All heavy equipment shall be used in accordance to the manufacturers intended design and function and per their written instructions. Safety devices, covers, shields, interlocks and alarms shall be fully functional as the manufacturer intended for them. Heavy equipment cannot be modified or altered in any way without written approval from the manufacturer or formal approval from a Professional Engineer registered in the State of California. Additionally, approval shall be received from Unger Constructions Director of Safety, Director of Risk Management and the Vice President of Operations. Before starting heavy equipment or putting equipment in motion, always make certain there is no danger to other persons created by the operation of equipment. Operators shall make a careful inspection of such equipment at the beginning and end of each shift. Equipment operators will conduct a pre-shift safety inspection of their equipment prior to use. All required safety devices shall be in place and functioning per the manufacturers' requirements. Any defects must be reported to your supervisor immediately.

All heavy equipment shall have a seatbelt. Seat belts will be used at all times. Personnel shall not be transported in or ride on equipment that are not equipped with seats for passengers. Equipment cannot be used to transport workers or materials unless it was specifically designed to do so. Operators shall use appropriate handholds and steps when ascending and descending the equipment at all times. When fueling equipment with gasoline or liquefied petroleum gas (LPG), the engine shall be shut down. All heavy equipment with an obstructed view to the rear will be equipped with a warning horn and an automatic back-up alarm that can be heard above and distinguished from the surrounding noise levels. Backup warning alarms shall be provided as required by OSHA standards. All warning alarms, if provided, shall be operational. Disabling alarms or warning devices will not be tolerated.

All personnel exposed to mobile heavy equipment shall wear a high visibility top color that provides operators of this type of equipment greater visual contact with personnel. Pedestrians and ground personnel shall not enter the area without first making visual eye contact with the equipment operator. Pedestrians and ground personnel shall not turn their back to mobile equipment when the equipment is within 25' feet of their position. No work shall be conducted by ground workers within 25' feet of the blind side of moving equipment.

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Hand and Portable Electric Tools

Use the right tool for the job, if you're not sure ask your Supervisor. Do not use defective or dull tools. All guards and safety devices should be kept in place and functioning properly. Under no circumstances should they be removed. Inspect electrical cords, plugs and receptacles before using and replace if they are worn or damaged. Construction power cords and tools shall be used in conjunction with ground fault circuit interrupters (G.F.C.I.) Electrical cords are not to be spliced and taped. Remove from service any defective tools or equipment and report it to your Supervisor.

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Hazard Communication/SDS

You Have the Right to Know. As an employee of a Unger Construction, it is important to understand that you, your physician, and your authorized representative have the right to request information about hazardous materials to which you may be exposed. Safety Data Sheets (SDS) is available for your inspection and review to accomplish this. SDS information is available from your Supervisor. A SDS is a document that supplies information about a particular hazardous substance or mixture. You should read the SDS for all materials/chemicals you may encounter on the job. They contain the information you need to know in case of personal exposure, spill, or other kind of accident that may cause exposure to hazardous materials.

If you handle or are accidentally exposed to toxic substances, the knowledge gained from having read the SDS for these substances can make a big difference in avoiding or reducing the extent of exposure and/or injury. Check with your supervisor anytime you use new chemicals or potentially hazardous materials, and read the SDS to keep yourself prepared and protected.

The SDS normally contains the following information:

1. A substance's chemical and trade name
2. Any hazardous ingredients
3. Physical data
4. Fire and explosion data
5. Health hazard data and protective First Aid procedures
6. Reactivity data
7. Spill and leak procedures and cleanup precautions
8. Special personal protection information
9. Other special precautions

If you have any questions about information contained in the SDS for a particular substance, please ask your supervisor. It is always better to ask questions than to risk an injury from lack of knowledge.

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Hazardous Substances Common in Construction

Asbestos and Lead are hazardous substances that have been used in construction for decades. If you find or hear of them on the jobsite contact your supervisor directly. Asbestos and Lead require specialized training and PPE; refer to our asbestos and lead policies for more information. Wood preservative chemicals often contain hazardous substances such as Creosote**,** Pentachlorophenol**,** Copper chromate, inorganic arsenic (CCA). Flammable vapors**:** Keep sufficient ventilation to eliminate accumulation of flammable/combustible vapors below 10% of the Lower Explosive Level. Corrosive liquids: All containers holding corrosives (acid or alkali) shall be clearly marked.

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Hearing Protection

Hearing protection must be used when noise levels exceed 90dB. Rule of thumb: if workers 3 feet apart need to raise their voices to communicate the noise level is likely above 90dB. Contact your safety representative if you need to perform a sound level survey.

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Hotwork

Hot Work is defined as an open flame and/or any task that generates heat or sparks. Hot work includes any temporary operation, scheduled or emergency, indoor or outdoor, involving open flames, heat and/or sparks producing and shall be used for all hot work performed onsite by employees or subcontractors. Examples of hot work include but are not limited to: Torch cutting, welding, soldering, brazing, grinding, or chop sawing metal studs. At Unger Construction Hot Work will be controlled through the use of a Hot Work Permit. The Hot Work Permit is used to supervise and control potential ignition hazards. Hot work will only be performed in areas that are or have been made fire safe. The hot work permit with have both sides completed, verified prior to any hot work commencing and hung on a job board or in welding area where it is clearly visible. The purpose of

the Fire Prevention and Hot Work policy is to establish the necessary controls to prevent a fire. The requirements for storing and transporting flammable/combustible liquids are covered in this policy as well as the requirements for safely performing hot work. Additionally, it provides workers with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards. This Fire Prevention and Hot Work Program serves to reduce the risk of fires in the following ways: identifies materials that are potential fire hazards and their proper handling and storage procedures; distinguishes potential ignition sources and the proper control procedures of those materials; describes fire protection equipment and/or systems used to control fire hazards; identifies persons responsible for maintaining the equipment and systems installed to prevent or control ignition of fires; identifies persons responsible for the control and accumulation of flammable or combustible material; describes good housekeeping procedures necessary to insure the control of accumulated flammable and combustible waste material and residues to avoid a fire emergency; and provides training to employees with regard to fire hazards to which they may be exposed.

All necessary hot work permits have been obtained prior to work beginning. Cutting and welding are done by authorized personnel in designated cutting and welding areas whenever possible. Adequate ventilation is provided. Torches, regulators, pressure-reducing valves, and manifolds are UL listed or FM approved. Oxygen-fuel gas systems are equipped with listed and/or approved backflow valves and pressure-relief devices.

Cutters, welders, and helpers are wearing eye protection and protective clothing as appropriate.
Cutting or welding is prohibited in areas where explosive atmospheres of gases, vapors, or dusts could develop from residues or accumulations in confined spaces. Cutting or welding is prohibited on metal walls, ceilings, or roofs built of combustible sandwich-type panel construction or having combustible covering.

Flammable/combustible liquids shall not be stored in areas used for exits, stairways, or normally used for the safe passage of people. Only NFPA 30 and/or FM approved containers and portable tanks shall be used for transportation and handling of flammable/ combustible liquids in quantities of 5 gallons or less.
Store, handle and use flammable and combustible liquids in well-ventilated areas. Containers for flammable and combustible liquids shall be properly labeled. Keep containers closed when not in use. Bond and ground metal containers when transferring flammable and combustible liquids.

Store flammable liquids safely in a fire-resistant safety storage cabinet that meets NFPA 30 and/or is FM approved. Typically these units are double-wall, 18-gauge steel construction. The vents will have flash arresters that allow hazardous vapors to safely release into the surrounding area. The doors shall be self-latching.

When working with flammable and combustible liquids wear PPE as required by the MSDS/SDS. Avoid or eliminate ignition sources (sparks, smoking, flames, hot surfaces). Portable fire extinguishers, correctly used on the type of fire they are intended for, can have a large role in stopping major fire damage. However, it should be noted that it may not be possible to extinguish every fire with portable fire extinguishers. When personal safety is in jeopardy, personnel should not attempt to extinguish the fire but should evacuate the building. In all instances, the emergency response team should be called immediately if a fire occurs. They will place the call to the fire department and set up an escort for the fastest possible response time to the scene of the fire.

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Heat Stress

When employees work in hot conditions Unger Construction takes special precautions in order to prevent heat illness. Heat illness means a group of serious medical conditions resulting from the body's inability to cope with a particular heat load and can include heat cramps, heat exhaustion, heat syncope, and heat stroke. Heat illness can progress to heat stroke and be fatal, especially when emergency treatment is delayed. Heat illness can occur year round, not just during the summer months. Working indoors in facilities that don't have a functioning HVAC system can produce temperatures that exceed levels of concern for heat stress. Wearing protective clothing like Tyveks suits or respirators can produce stresses on the body that are likely to cause concerns for heat stress regardless of the time of year. There is no absolute cut-off below which work in heat is not a risk.

With strenuous work at high relative humidity even work at an air temperature of 70 degrees Fahrenheit (F) can present a risk. In California employers need to take some actions to effectively reduce heat illness risk when temperatures approach 80 degrees F. At temperatures above 95 degrees F, especially with strenuous work, high heat risk reduction needs to be a major concern.

An adequate supply of clean, fresh, pure and suitability cool, potable water will be provided as close as practical to where the work is being performed for each crew and each worker. All workers whether working individually or in crews will have ready access to drinking water. Workers at elevated heights such as scaffolding, scissorlifts or aerial booms shall have water placed near them. Unger Construction will provide water for their direct employees. Subcontractors are responsible for providing water for their own employees. Water will be staged near the work force activity, the cool down area and the break/lunch area. On smaller jobs these might all be the same location. Water could be available from three different sources; plumbed within the project or continuously supplied, drinking containers “igloo jugs” or individual servings of bottled water. Regardless of the means of supply the quantity of water on hand at all times shall not drop below 2 gallons per employee for an 8 hour shift. Encourage employees and subcontractors to drink water frequently throughout the day. Remind them that if they are thirsty they are already experiencing signs of dehydration.

When the outdoor air temperature in the work area exceeds 80 degrees Fahrenheit, one or more areas with shade shall be maintained at all times while employees are present that are either open to the air or provided with ventilation or cooling. When the outdoor air temperature in the work area does not exceed 80 degrees Fahrenheit, Unger Construction shall either provide shade or provide timely access to shade upon an employee's request. The amount of shade present shall be enough to accommodate 100% of the employees on the shift at any time. The shade shall be constructed so that the workers can sit in a normal posture fully in the shade without having to be in physical contact with each other. The shaded area shall be located as close as practicable to the areas where employees are working.

The direct heat of the sun can add as much as 15 degrees F to the heat index. If possible, work should be performed in the shade. If not, employers where possible, should provide a shaded area for breaks and when employees need relief from the sun. Wide brimmed hats can also decrease the impact of direct heat and will be made available to Unger employees.

Ensure that access to a shaded area and/or methods to rapidly cool a person are in place and available to any worker suffering from heat illness or needing shade and/or cool down to prevent the onset of illness. Employees shall be allowed and encouraged to take a cool down/rest breaks in the shade for a period of no less than five minutes any time they feel the need to do so to protect themselves from overheating. Such access to shade shall be permitted at all times. Workers need to understand they will not be disciplined for feeling heat illness symptoms or stopping work to rest in a cool down station.

Employees shall be encouraged to take all cool down/rest breaks. Cool down/rest breaks are important to reduce internal heat load and provide time for cooling. Heat illness occurs due to a combination of environmental and internal heat that cannot be adequately dissipated. Breaks should be taken in cooler, shaded areas. Employees shall be encouraged to drink water during their rest breaks as needed to reduce the chance of developing heat illness. Foreman and superintendents need to role model heat illness prevention and lead by example by taking multiple water breaks, in addition to normally scheduled breaks.

Workers need time for their bodies to adjust to working in heat. Acclimatization procedures activate when the temperature reaches 80 degrees. This “acclimatization” is particularly important for employees returning to work after (1) a prolonged absence, (2) recent illness, or (3) recently moving from a cool to a hot climate. Superintendents and foreman shall monitor workers closely for signs and symptoms of heat illness, particularly when they have not been working in heat for the last few days, and when a heat wave occurs. New workers shall be asked about their past work history during their orientation. Close supervision of a new employee by a supervisor or designee for the first 14 days of the employee's employment by the employer, unless the employee

indicates at the time of hire that he or she has been doing similar outdoor work for at least 10 of the past 30 days for 4 or more hours per day whenever high heat procedures are required to be implemented.

When the air temperature equals or exceeds 95 degrees Fahrenheit, additional High Heat Procedures shall be implemented by the supervisor on site. These procedures shall include the following to the extent practicable: Ensuring that effective communication by voice, observation, or electronic means is maintained so that all employees at the work site can contact a supervisor when necessary. An electronic device, such as a cell phone may be used for this purpose only if reception in the area is reliable. Observe employees for alertness and signs or symptoms of heat illness. Remind employees throughout the work shift to drink plenty of water. During high heat conditions workers must be provided with 10 minutes cool down periods every two hours. Close supervision of a new employee by a supervisor or designee for the first 14 days of the employee's employment by the employer, unless the employee indicates at the time of hire that he or she has been doing similar outdoor work for at least 10 of the past 30 days for 4 or more hours per day. Print and post the national weather report showing the projected temperature in a conspicuous place on site.

When a worker is showing symptoms of possible heat illness, steps will be taken to keep the stricken worker cool and comfortable to reduce the progression towards more serious illness. Coworkers need to be on the lookout for others exhibiting symptoms of heat illness. If a colleague mentions they are cramping notify your foremen or superintendent immediately, don't wait until break. Heat illness symptoms can change rapidly. Generally speaking heat illness progresses through three phases. Workers experiencing heat stroke or phase 3 symptoms are in serious jeopardy. This illness is life threatening take appropriate actions without delay, call for emergency medical services. Early warning signs of heat illness include loss of appetite, weakness, headache, nausea, dizziness are all early warning signs/symptoms of heat illness. Heat cramps are painful spasms of the muscles. Cramps are an advanced symptom of heat illness and should be taken seriously. Heat cramps can rapidly progress into heat exhaustion.

Workers should never discount and discomfort or symptoms the have noticed or are experiencing. Progression to serious heat illness can be rapid. Workers need to understand that they will not be disciplined for feeling symptoms or stopping work to drink water or rest in a cool down station. Heat Exhaustion results from the loss of fluid through sweating and not drinking enough replacement fluids. The worker still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. The skin is clammy and moist, while the body temperatures are normal or slightly elevated. Heat Stroke is the most serious health problem for workers in a hot environment. It is caused by the body's failure to regulate its core temperature. Sweating stops and the body can no longer release excessive heat. Victims of heat stroke will usually die unless treated promptly. The signs of heat stroke include: Mental confusion, delirium, loss of consciousness, convulsions, or coma. The body temperature will rise to 106 degrees Fahrenheit or higher. The skin will be hot, dry, and may be red, mottled, or bluish. Seek emergency medical attention (911) immediately. Send an escort to the jobsite entrance so they can escort 911 services immediately to the injured worker.

When workers exhibit or report symptoms of Heat Illness immediately call for medical assistance inform the superintendent/foremen or the emergency response team. Move the victim to the coolest, shadiest spot available. Have the victim lie down on his or her back on the coolest surface available. It is vitally important to reduce the victim's core temperature. Fan the victim vigorously while soaking the victims clothing gradually with cool water. Place cold compresses under the arm pits, on the neck, on top of the head, and in the groin area. Remove excess layers of clothing. If ice is available place ice packs on the neck, top of the head and arm pits. If there is no improvement in their symptoms, within 15 minutes, transport the victim to the nearest occupational health clinic. Directions and maps are provided in the Grab-n-Go binder.

Seek emergency medical attention (911) should the symptoms persist for more than a few minutes or if the victim vomits or loses consciousness. Send an escort to the jobsite entrance so they can escort 911 services immediately to the injured worker.

Initial _____

Housekeeping do your part to keep work areas, ramps, platforms, access roads or paths clear of material, tools, or debris which create tripping and fire hazards. Properly stack materials to prevent them from falling, slipping, or collapsing. On multi-story buildings keep stacked material at least 6 feet from the edge of the building or large floor openings.

Initial _____

Illumination

Illumination for constructions sites must be a minimum of 5 foot candles. Mechanical equipment rooms, electrical rooms and carpentry/metal shops must be 10 foot candles. First aid stations and offices must be 30 foot candles. Contact your safety representative for a light level survey.

Initial _____

Impalement Hazards (

Rebar, dowels, specialty metal and metal conduit in essence materials capable of impaling a worker must be covered by impalement resistant caps. The caps must be 4 inches square or capable of resisting a 250lb ten foot drop test. Rule of thumb if the object extends more than 4 fingers it must be capped. Items that extend less than 4 fingers are not considered impalement risks though they could be considered a laceration risk and should therefore be protected by some means.

Initial _____

Infection Control Training -

Print Name: _____ Date: _____

Classification of work

Type A work: Activities which creates little or no dust, Inspection for non-invasive activities, Removal of ceiling tiles for visual inspection, Painting/wet sanding of small patches (smaller than your hand), Wall coverings, electrical trim, minor plumbing, Installing phones, computers, TV's, etc. Initials:_____
Type B work: Involves low dust producing activities, disturbance of less than 10 sq feet of building material, Cutting or sanding small areas (wet method), Repair small section of insulation, Install telephone or computer cabling, Minor electrical, Removal and replacement of wall or ceiling fixtures. Initials:_____
Type C work: Involves moderate dust producing tasks, less than 100 sq feet of building material, tasks that can be completed within one work shift. (In, out, done in one) Demo a small section of sheet rock, Sanding of walls for painting, Removal of floor coverings or ceiling tiles, New wall construction, Minor duct work or electrical work above ceiling, Major cabling activities. Initials:_____
Type D work: Involves high dust producing tasks, disturbs more than 100 sq feet of building material, tasks that require more than one shift of work. Demolition of building components, Total remodel of an area, Heavy demolition or removal of cabling system, New Construction, Floor or substrate grinding, Core drilling, Initials:_____

Dust

When working in health care settings dust is a significant health concern. Initials:_____
Dust is a very effective transporter of airborne bacteria. Particles of dust give a free ride to bacteria that look for weak and vulnerable hosts (patients). Initials:_____
Construction dust can infect the sinus, ears, eyes, lungs, central nervous system, cardiac valves, gastrointestinal tract, bone and skin. Initials:_____
Construction dust has been linked directly to patient deaths. Initials:_____
Dust control is required prior to construction; planning, before you make any dust. Determine the best dust control method to use (wet, HEPA vacuum). During construction to keep the dust confined to the immediate work area. After construction to clean up and remove the dust before turning the area back over. Initials:_____
Methods of controlling dust include minimizing the dust generation at the source of the work. Wet cutting methods; use a HEPA vacuum at the source of the dust. Maintain negative air pressure within work area utilizing HEPA equipped air filtration units. Use clean sweep when cleaning up, Wet mop and/or vacuum the floor with HEPA filtered vacuum before leaving work area. Initials:_____
Other methods of dust control: Seal all penetrations into the work area to contain airborne dust. Seal holes, pipes, conduits, ducts and punctures appropriately. Initials:_____

Infection Control Barriers

Infection control barrier areas are designed to reduce the likelihood that dust will be transported via air currents, foot traffic, carts or clothing into an active area of the hospital. Initials:_____
Infection control barriers will include fire resistant plastic, sealed floor to ceiling, an ante room, walk off mats, negative air machines. Initials:_____
Never alter an infection control barrier without authorization. Initials:_____
If an infection control barrier is in need of repair or service contact your supervisor directly. Initials:_____
Report work conditions that have the potential to create excess dust levels in the work area to your supervisor directly. Initials:_____

Negative Air Pressure

What is negative pressure? Negative pressure is pressure that is less than that of the surrounding area meaning airflow is into the construction area **not** from the construction area into the active area of the hospital. Initials:_____
Why is negative pressure so important? From an airflow perspective negative pressure essentially separates the construction environment from the medical environment. Ensuring dust is contained in the construction area. Initials:_____
Negative air machines are HEPA filtered exhaust fans. They are used to pull air from the work space and vent to a non-critical area, preferably to the outside. Initials:_____
Don't turn off negative air machines. Loss of negative pressure can allow dust to migrate out of the area. Initials:_____
If the negative air machine is not functioning properly contact your supervisor directly. Initials:_____

Ante Room

Anterooms allow you to maintain a consistent negative pressure while entering and exiting the work area. In essence a neutral pressure zone. Initials:_____
Purpose of the ante room is pressure isolation. When exiting or entering the ante room make certain that the interior and exterior doors are not open at the same time. This defeats the purpose of the ante room and ruins the negative airflow. Initials:_____
The anteroom is the final cleaning station for clothing, shoes, tool bags, tools, materials, carts etc. These items should be vacuumed clean and dust free with a HEPA vacuum before re-entering the medical facility. Initials:___
Anterooms are not to be used for storage of equipment or materials. Initials:_____

Infection Control Protocol/Procedures

All personnel working in an isolated containment area must contain their dust. Do not allow dust into the active area of the facility. Initials:_____
Dust is much easier to contain at the source; use wet cutting methods, plastic barriers, dust free attachments. Initials:_____
Use a HEPA vacuum regularly during work to reduce dust accumulation and migration. Do not allow dust or debris to accumulate in your work space. Initials:_____
Clean up your area 4 times per day. Each trade is to clean their floor area before, break, lunch, 2nd break and quitting time. Initials:_____
Servicing the sticky mats is everyone's responsibility. Lift the edges and fold inward to reduce the spread of dust. Contact Manny Navarro or Dave Porter when more sticky mats are needed. Initials:_____
Anytime foot prints are noticed outside of construction areas call your supervisor directly. Initials:_____

Summary

In summary dust is a very effective transporter of bacteria. Construction dust has been linked to hospital illness.
There are many sources of dust from construction such as environmental, construction materials and worker apparel. We must ALL take preventative measures with regard to dust in order to protect the patients and the hospital staff

I understand the requirements for infection control and that failure to comply with these expectations will lead to disciplinary actions up to and including dismissal from the jobsite or termination.

Print Name: _____

Signature:_____

Job Hazard Analysis (JHA's)

JHA's are used for activities that have a greater risk of injury or for tasks that are less common or infrequent. Crane lifts, Permit required confined space entries, energized electrical work, developing a fall protection plan for a project are examples of JHA's. Typically JHA's are completed by safety representatives, superintendents or project managers. These activities should be identified in the 30 day look ahead giving plenty of time to develop an effective plan.

Initial _____

Lacerations/Gloves

According to the latest data from the U.S. Bureau of Labor Statistics, injuries to the hand and wrist accounted for 139,820 lost time injures. Hand lacerations and punctures are the 2nd highest cause of lost time injuries to construction workers nationally. Unger Construction is no exception. When the safety committee reviewed the 5 year injury trend for our workers, we found our injury data was dominated by lacerations and punctures. In response to this injury trend the safety committee researched and evaluated numerous styles and types of gloves.

After performing a glove trial in the field and collecting input from users, a glove has been selected. The glove offers good tactile dexterity, has a solid cut and punctures resistance rating, yet is still comfortable. The glove is manufactured by Protective Industrial Products under the trademark MaxiFlex, Cut.

Not all of our tasks require gloves; therefore Unger Construction is not implementing a mandatory full time glove program. However, often times our employees should be wearing gloves to reduce the potential of an injury, as evidenced by our five year injury trend. In situations where the JHA identifies the potential for lacerations, cuts, punctures or abrasions, then wearing gloves should be considered mandatory.

Initial _____

Ladders

All ladders will be used in accordance to the manufacturers intended design and function and per their written instructions. Ladders cannot be modified or altered in any way without written approval from the manufacturer or formal approval from a Professional Engineer registered in the State of California. Additionally, approval shall be received from Unger Constructions Director of Safety, Director of Risk Management and the Vice President of Operations. Read and heed all instructions provided by the manufacturer on use, maintenance, care, warnings and limitations.

Capacity: Ladders are constructed to safely hold a specific amount of weight. These weight limits consist of users, their clothing, tools, and materials. Extra allowance should be made for stress exerted by the worker while performing the job. The heavy-duty ladder is best suited for construction use because it holds up against frequent and rigorous demands. Unger Construction will not allow operation or loading of ladders above 80 percent of the units documented capacity as specified by the manufacturer.

Pre-use Inspection: Ladders shall be inspected for visible defects which could cause injury before each use. The inspection shall include looking for structural defects, broken or missing: rungs, cleats, steps, rails, spreader bars, corroded components, damaged or missing slip resistant feet. Ladder rungs must be uniformly spaced and meet OSHA/ANSI specifications. Faulty, defective or questionable ladders shall be taken out of service and red tagged. Report any improper or unsafe ladders to your supervisor. Ladders must also be inspected for legible safety warnings, decals and placards. Ladders with worn, damaged, missing or covered safety warnings, decals and placards shall be taken out of service, red tagged, until the labels can be replaced. When labels are replaced they must be the exact same decal that was provided by the original manufacture.

Servicing and Repairing: Ladders with structural defects cannot be repaired. Defective ladders must be destroyed in a manner that would guarantee they could not be used again and then disposed of.

Types of Ladders: Generally speaking only two styles of ladders are allowed on an Unger Construction project; A-Frame and Extension ladders. The general rules will apply to both ladder styles however these ladders cannot be used interchangeably they each have their own design and purpose. For example an A-Frame ladder cannot

be closed up and used as if it were an extension ladder. In situations where a normal ladder will not work contact Unger Constructions Safety Director. Extension ladders have some unique requirements that are included in their own section below.

General Rules: Use only well-built, undamaged ladders of the proper size and category suited for your work. Ladders shall be used only on stable and level surfaces. Ladders are not to be placed upon unstable objects such as boxes, or loose lumber. All ladders must have slip resistant feet. A ladder should not be placed at a blind corner or a doorway where it could be struck. If it is necessary to use a ladder in such places, the area is to be blocked off. Ladders placed in any location where they can be displaced by workplace activities or traffic, such as in passageways, doorways, or drive aisles, shall be secured to prevent accidental displacement or a barricade shall be encompass the work area to keep the workers, pedestrians or vehicles away from the ladder. Ladders must never be placed on or against movable objects. Always face the ladder. When going up or down and keep hands free of tools or materials. Workers must use two hands for climbing (up or down). Workers must face the ladder at all times. Workers must keep their body centered between the side rails (belly button rule). Properly position your ladder to avoid overreaching. Workers must not use the top cap or the first step down from the top cap of ladder for standing or sitting. Only one worker is allowed on the ladder at a time, no exceptions.The area around the top and bottom of ladder shall be kept clear and shall not be used for storage or staging of materials. Step-ladders must be fully opened to permit the spreader lever to catch. Step-ladders are not to be used in the closed position.

Generally speaking the ladders on an Unger Construction site will be made of fiberglass however, metal (aluminum) ladders are allowed and in some situations they are the ladder of choice. With that said metal ladders are not to be used for electrical work or within four (4) feet of open electrical apparatus, wiring, or other live electrical equipment. If proper ladder protocol is followed, working with personal fall arrest equipment is not required. Ladder use that is not consistent with ladder protocol will require proper use of personal fall arrest equipment. Any situation not in compliance must be evaluated by Unger Construction prior to the commencement of work.

Extension Ladders: Extension ladders should be long enough so that side rails extend three (3) feet above the landing. Extension ladders have an inherent risk of slipping or unintentional displacement. To eliminate this concern Unger Construction requires extension ladders to either be backed (held in place by a coworker), staked (staked into the earth and tied at the inside area of the bottom of the ladder) secured (tied to a structural support) or stabilized (stabilized by a ladder accessory) Extension ladders cannot be used unless one or more of these practices are followed. The angle of the ladder should be 4:1. The base of the ladder shall be positioned one foot out for every 4 feet up. When ascending or descending a ladder, employees will use the three point system, e.g. one hand and two feet or two hands and one foot must be in contact with ladder at all times which means they cannot climb the ladder with tools or materials in their hands. Due to their typical working height extension ladders prohibit simple hand-to-hand transfers of tools or materials. In these situations ropes or pulleys can be used to hoist tools or materials to the workers location. When transporting materials up a ladder, a barricade or spotter should be used to protect the area at the foot of the ladder.

Ladder Accessories: In many situations ladder accessories are the best option. Ladder accessories such as walk through extensions are a far better means of achieving the 3 foot extension rule for elevated platforms. Ladder stabilizers are very effective at preventing accidental displacement. Leg extenders allow ladders to be used on surfaces that are not level. All accessories shall be used as designed by the manufacturer.

Ladder Storage: Ladders shall be stored when not in use. Use horizontal or vertical ladder racks or to secure ladders against walls or columns chained or tethered such that they will not shift unexpectedly. Ladders cannot be stored in travel paths or exit corridors.

Initial _____

Line Breaking
Due to the potential for catastrophic injuries and or significant business interruptions, specialized work techniques are required to remove, relocate, demolish or otherwise change the integrity of a line, pipe, tubing, duct, tank, or container. This policy will apply to all operations where the integrity of a line, pipe, tubing, duct, tank, or container is changed, regardless of what it currently contains or once contained (inert materials, hazardous material, and hazardous pressure).Before any employee is allowed to perform line breaking they must first receive training. Each employee must demonstrate an understanding of the required training to their supervisor before being allowed to perform work. Line breaking is a high hazard activity in which all risks must be identified and controlled. Workers must be aware of and protected from any potential hazard before any work is to begin.

Initial _____

Lone Worker
This policy is intended to help keep Unger Construction employees safe while they are working alone or isolated from personnel. The concept of working alone refers to a situation where one person is performing a task by themselves. They cannot be seen or heard by other workers and assistance is not readily available. Workers who are working alone face the added hazard of being unable to ask a fellow worker to obtain assistance in an emergency. Employees who work alone or in isolation tend to be more vulnerable than those who have coworkers present if an emergency occurs. Even though such incidents aren't common, when they do occur the consequences can be serious. The objective of this policy is to ensure the safety of lone workers by minimizing the risks that they face and putting appropriate measures in place to provide for their safety. While there may be risk, working alone can be a safe and acceptable situation.
Any worker who is both out of range of natural unassisted voice communications and not under observation by other persons shall be provided with an effective means of obtaining assistance in an emergency (whistle, cell phone)
Employees working alone must be accounted for by sight or verbal communications throughout each work shift at regular intervals appropriate to the job assignment (breaks, lunch) at the end of the task assignment or at the end of the shift. Acceptable means of visual communication may include may include the use of a camera or in person. Cell phone may be used in areas where there is consistent communication.

Tasks that are not appropriate for working alone include but are not limited to: confined space, handling hazardous materials/chemicals, electrically energized work, extreme temperatures, tasks that require active fall protection, tasks that require the use of respirators, tasks that generate heat such as flame or sparks.

In some situations the risks of working alone can be a reduced by the implementation of a buddy system. Buddies do not need to be Unger Construction employees they can be members of the clients' staff (including cleaners, security, and maintenance). Remember cameras can be used by security personnel to monitor lone workers. In these situations the security officer is the lone worker's buddy however the roles and responsibilities of a buddy need to be understood and agreed to. Subcontractors can be the buddy; in fact the presence of an Unger Construction employee and a subcontractor's employee will enable them to be each other's buddy. Roles and responsibilities of a buddy include: establishing a means and method to keep in contact, (time and place for visual or verbal confirmation), knowing the escalation procedures if the lone worker cannot be contacted or if the lone worker fails to make contact within the agreed upon times.

Initial _____

Machinery and Equipment Machinery and equipment shall be operated, serviced and repaired by qualified personnel only. The operator is primarily responsible for the safe operation of equipment. They must have knowledge of the safety regulations applicable to the equipment and its operation. If in doubt, ask your Supervisor before proceeding. Operators of power-driven equipment and vehicles shall make a careful inspection of such equipment at the beginning and end of each shift. Any defects must be reported to your Supervisor immediately. Operators and assistants must know proper hand signals.

Before starting machinery or putting equipment in motion, always make certain there is no danger to other persons created by the operation of such machinery or equipment. Wear your seatbelt. All equipment shall be safely parked, and the brake set before leaving the equipment. Backup warning alarms shall be provided as required by OSHA standards. All warning alarms, if provided, shall be operational. Disabling alarms or warning devices will not be tolerated. Machinery and equipment shall only be operated and/or repaired by qualified persons as determined by supervisory personnel. Do not service or repair equipment while it is in motion.

Initial _____

Maintenance of Records

Unger Construction will keep records of the actions taken to implement and maintain this IIPP. The records will be maintained on file for a minimum of three years. The records kept relating to this IIPP will not adversely affect the retention of medical and exposure records in accordance with Title 8, California Code of Regulations, Section 3204 "Access to Employee Exposure and Medical Records". Records of scheduled and unscheduled periodic inspections as well as other records including methods used to identify and evaluate jobsite conditions and work practices shall also be retained. Records relating the IIPP shall include at a minimum, person(s) conducting the inspection or evaluation; the unsafe conditions and work practices that have been identified; and actions taken to correct the identified condition or work practice. Records and documentation of safety and health training shall include at a minimum, the name of employee, date of training, training topic(s), and the name of the instructor.

Initial _____

Material Handling, Manual Lifting and Body Mechanics

The purpose of this program is to ensure the protection of employees and subcontractors from the hazards associated with material handling, manual lifting and body mechanics. Strains and sprain injuries are a leading injury category for construction workers. At Unger Construction we are making a concerted effort to reduce these types of injuries for our employees and subcontractors that are involved with manual handing, manual lifting and tasks that would benefit from proper body mechanics. Increased awareness of the likely causes of the injuries and training in lift/handling techniques has been proven to reduce injuries in job functions similar to ours.

Factors that Increase the Chance of Injuries: Repetitive tasks, Poor or static posture, Extended reach, Twisting motions, Sudden changes in position, Weight, Vertical Lift Distance, Coupling/Grip, Frequency, Carry Distance can create ergonomic injuries. There are various types of injuries that can occur from lifting incorrectly. Back strain is a more common type of lifting injury. It results from the over stretching of certain muscles and can be avoided by employing correct lifting techniques and asking for help when having to move something heavy and/or awkward.

Plan the lift: Plan your work such that it minimizes the risk factors mentioned above. Very often simple changes in the work plan can be employed that dramatically reduce the potential exposure to injuries. Examples include, limiting the time workers perform repetitive tasks. Rotate the workers in and out well before them become fatigued. Plan the work to minimize the number of times an item is handled. Use just in time concepts of material delivery. Deliver only the amount that be handled safely. Avoid twisting motions and sudden changes in position. Find a way to use push pull techniques. Design the lift to incorporate Push/Pull/Slide motions rather than lifting motions. Break the load down or take multiple trips to reduce the weight per lift. Carry the load waist high. Perform stretching or flexibility exercises for a few minutes after being in static posture or just before you attempt a lift. Use attachments or place the item upon another item to provide your coupling forces or grip.Lift it twice. Think carefully about the movements you’re going to make before you do them. Lifting twice means applying the principal of planning your movements prior to performing the lift: Your first lift is a mental lift. Think about the lift prior to actually doing it: how am I going to lift the item? Can I do it myself or should I get some help? How heavy is the item? Do I need to use mechanical assistance?
Where am I taking the item being lifted? Is the area clear where I need to set it down? Is it a difficult path or a distance to go? What hazards may hamper the lift or obstruct the travel path? Eliminate those hazards before you lift the item. In other words, Plan the Lift First. The second lift is the actual physical lift. Here is where you

carry out your plan. Use proper body mechanics and techniques while going through the motions. Bend those knees. Most important: Keep the load as close to your body as possible and don't twist.

Multi-person Lifts or Carry Aids: Generally speaking materials that weigh >25 pounds cannot be consistently handled safely by one person. Many construction workers scoff at that number thinking they can handle much more weight. They tend to overlook the reach factors, coupling factors, carry distance and frequency of the handling focusing instead purely on the weight. Unger Construction encourages the use of transportation aids such as carts, carry devices, or multiple person handling for lifts that weigh > 25 pounds or are awkward or difficult to handle by oneself. Materials that are awkward or difficult to handle due to length, configuration or weight require an additional person. When using the two person transport method or a cart/carrying device one person shall be in control of each end of the material being transported. Handlers must take adequate precautions: Anticipate blind corners and cross traffic to prevent collisions with other personnel; Maintain a slow pace and the ability to stop within one stride; Communicate to nearby workers, and with each other, to ensure unimpeded safe progress; Pre-plan to inform workers of material destination, pre-approved route, any spots requiring extra attention or coordination such as door thresholds or other items that could snag or slow the wheel. To reduce the risk of injury with these types of tasks the vertical lift distance and reach should be kept at the minimum. These items are pushed or pulled and require multiple people to properly control them. Stretching and flexibility exercises for the upper extremities neck and back should performed just prior to pushing or pulling these items. When handling or lifting, the safe way is the best and easiest way.

Body Mechanics: Your back is in motion all day, every day, even when you sleep. It bends when you sit, twists when you turn, lifts when you stand and supports you when you walk. An injured back can be uncomfortable or it can be disabling. By learning a few back injury prevention techniques, you may be able make your work day safer. Lifting safely is one the most important things you can do to protect your back throughout your lifetime. Proper Body Mechanics can make a substantial difference. The back and stomach muscles are easily injured and they bear most of the strain if lifting is done incorrectly. When lifting, use the large muscles of your legs, rather than the small muscles of your back. Take a firm grip, secure a good footing, place the feet a comfortable distance apart, keep the load close, set your back in its normal S curve (like a weight lifter), bend your knees, and lift with your legs. Keep one elbow tucked into your side to prevent twisting and straining your back.

The general rules of safe lifting is to "Get a firm grip on the load, keep it close, bend at the knees, use your legs to lift the load, and keep your spine in the natural position (with an arch in your lower back). These principles always apply and should be incorporated into every lift. Many people get injured trying to hand the awkward shaped, awkward sized or awkwardly weighted objects. Here are some pointers for dealing with those: Use Two-Person Lifts for Large or Awkward Loads. Decide in advance which person will direct the move. Keeping knees bent and back straight, lift and raise the load together. Move smoothly together as you carry, keeping the load at the same level. Unload at the same time, keeping knees bent. When you have to lift an object plan ahead, decide how you are going to pick up the load, carry it and set it down, then check the route for obstructions. Always get assistance if the load is too heavy or too awkward. As you lift, position your feet close to the load and squat - don't bend down. Rise to a standing position, using the strong muscles in your legs rather than the weaker ones in your back. Don't twist your body when carrying the load. Lower yourself to a squatting position as you set it down.

Initial _____

Medical Treatment

During your employment with the company you are covered by Worker's Compensation Insurance for medical treatment and disability due to any injury suffered in the performance of your duties. In order to be eligible for these insurance benefits you must comply with the following instructions:

1. Report any work-connected injury or illness to your Supervisor immediately (regardless of how minor it may appear to be).

2. Obtain authorization from your Supervisor for medical treatment if necessary. We utilize medical centers and clinics near the jobsite. You are required to go to one of the physicians listed at the job office, as they are best equipped and experienced to handle the variety of injuries and illness which occur during a work-related injury and in the treatment of the types of injuries incurred on construction projects.
3. Obtain prompt medical attention; do not wait until it is convenient at a later date. Minor injuries can become serious when medical treatment is delayed.
4. Immediately provide your Supervisor with a copy of the medical work status slip which is provided by the attending physician following each medical visit. This way they are promptly aware of your current status and physical restrictions or limitations, if any. They can seek appropriate work accommodation if available through the job office, if you are unable to return to your usual duties because of the injury. When possible, provide an estimate of the length of disability. We will attempt to provide transitional work if allowed by the treating physician.

If you engage the services of a physician on your own without notifying your Supervisor/Safety Representative or the job office, you may be held responsible for payment of bills incurred and may jeopardize your eligibility for disability benefits.

Initial _____

Mobile Elevated Work Platforms

Scissor lifts and aerial boom lifts are considered MEWP's. This policy will apply to all personnel operating mobile elevated work platforms (MEWP) on Unger Construction projects. The purpose of this program is to ensure the protection of employees and subcontractors from the hazards associated with Mobile Elevated Work Platforms (MEWP) also known as Scissor lifts and Aerial Boom lifts. MEWP's cannot be modified or altered in any way without written approval from the manufacturer or formal approval from a Professional Engineer registered in the State of California. Additionally, approval shall be received from Unger Constructions Director of Safety, Director of Risk Management and the Vice President of Operations. Knowing how to operate the MEWP does not authorize you to do so. Current certification cards are required regardless of the operators comfort level or years of experience. Additionally, permission must be granted by your foreman, superintendent or project manager and can only be granted when you present a current certification card. If your certification card has expired contact the Director of Safety to schedule refresher training.

Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, warnings and limitations. MEWP's shall be only operated, serviced and repaired by qualified personnel. Before performing any services or repair work all equipment must be stopped and positively secured against any movement or operation. Every lift has a maximum weight capacity. Overloaded lifts will become unstable at less than full elevations. Make sure you understand the lifts capacity before use. Don't guess at the weight or the reach distance use actual values. Don't exceed 80% of the rated maximum value. Every lift has a maximum weight capacity which can vary based on the unit's configuration (sliding platforms in the extended or retracted positions). These weight limits consist of users, tools, and materials. Overloaded lifts will become unstable at less than full elevations. Make sure you understand the lifts capacity before use. Don't guess at the weight or the reach distance use actual values. Don't exceed 80% of the rated maximum value.

Unger Construction will not allow operation or loading of MEWP's above 80 percent of the units documented capacity as specified by the manufacturer. Whenever the operation or load exceeds 70 percent of the units rated capacity Unger's Director of Safety shall be involved in approving the safe work plan or job hazard analysis. Only employees and subcontractors who have successfully completed training, hold a current certification card for the particular unit and are authorized by their supervisor are allowed to operate a MEWP. Operator training, evaluation and certification shall be conducted by designated personnel who have the knowledge, training and experience to train powered industrial truck operators and evaluate their proficiency.

While each style of lift may look differently they all have one thing in common: the potential for serious injury if operated in an unsafe manner. There are numerous styles of extendable reach lifts. Feature and functions vary

greatly. Being certified to operate a lift is not enough to ensure safe operation. Before operating a lift read the owner's manual and become familiar with the safety placards, decals, limitations and controls. As the operator of the lift you must be familiar with the operator's manual, the controls, the unit's response, how the unit handles, and the limitations/capacities of the unit. If you have not operated the lift recently, take it on a warm up test drive before beginning work to become familiar with the controls and the response of the unit. Do not start working with the unit until you are confident in your abilities and the units' features and limitations.

Electrocutions falls, crushed body parts and tip overs are just a few examples of incidents that result from unsafe operation of a lift. Inspect for overhead obstructions be careful to maintain proper clearance when moving up or down. Most injuries occur when units are in motion. Stay more than 10 feet below or away from exposed power lines. When raising or lowering the platform keep your hands, arms, legs, inside the rails to avoid a pinch point that could create a major injury. Keep both feet on the floor do not stand, sit or climb on the guardrails. Do not climb over the rails to access another platform, stay in the basket. As the operator of the lift you are responsible for the safety of the ground personnel working in or around your work area. You are responsible for signage and barricades to provide a safe working distance.

Due to the aspect ratio (narrow and tall) a small amount of sideways force placed against the lift can generate a large amount of force and cause a tip over. Some lifts have a maximum horizontal load of 100 pounds. Do not push or pull on items outside the lift with force. Ropes, power cords, hoses that become entangled can pull the lift over.

When moving from one location to another, lower your lift to the travel position, to maximize the stability. When handling bulky loads that block your vision I should travel in reverse. Some lifts have large blind spots in this situation ground spotters are required. Travel at a safe speed. You will need to adjust your speed depending on congestion, visibility, inclines and other factors

There is no braking mechanism on boom lifts. Releasing the controller or removing your foot from the foot peddle should stop all movement. After arriving at your destination mark your immediate work area with barricade tape, delineators or cones to keep workers or pedestrians out from under your drop zone.

After positioning the lift into its working position press the emergency stop button. Boom lifts can pivot around the base changing the operator's orientation. The same movement that causes a right hand turn while facing one way will cause a left hand turn while facing the other the other direction.

Surface conditions and slope of the work area have a dramatic effect on stability. Lifts are designed to operate on flat level surfaces. A sloped surface increases the leverage effect making the lift unstable. If a wheel drops into even a small pothole, trench, an elevated lift will become unstable and tip over. Inspect your travel path for holes, drop offs, hole covers, grates, ramps, cross slope and surface conditions before using the lift. Make sure the travel path can support the weight of your lift. When using rough terrain units inspect the area for recent trenches that may not have proper compaction. Avoid these areas. Covers must be rated for 4 times the weight of the lift.

Personal fall protection (harness and lanyard) is determined by the manufacture and for some projects the clients own safety policy. Operators must be familiar with and comply with these expectations. With that said generally, scissor lifts do not require fall protection because the unit's guardrail provides protection from a fall. Aerial boom lifts due require fall protection. The purpose of the harness and lanyard is to keep the operator and passenger within the basket during sudden movement. The harness and lanyard are not being used to protect the operator from going over the rail. Keep both feet on the floor of the platform. Do not stand on or climb over the railing. Never tie off outside the basket. There is no reason to tie off outside the basket; you could be seriously injured due to unexpected movement due to the operator, hydraulic failure or mechanical failure.

Initial _____

Music Players
The use of portable audio, video players "open air" and personal music systems such as; iPods, MP3, Cd players, headsets, earphones and related equipment may interfere with verbal instructions, audible alarms, and emergency warnings is prohibited.

Initial _____

New to Unger Employees
The objective is to ensure that employees new to Unger Construction are supervised, trained, mentored and managed in order to prevent: personal injury, injury to others, environmental damage or property damage. By establishing formal mentors new Unger employees learn their roles, responsibilities, safety procedures and the Unger Way quickly and in a stress free manner. Providing easy identification of new to Unger employees enables a wide network of informal mentors and coaches via their more experienced peers.

Unger Construction has high expectations and requires safety excellence for each employee, crew, construction project and for our entire company. Every employee must adhere to our safety policies, procedures and be in full compliance with applicable governmental laws, rules and regulations. Employees that choose to conduct themselves in a manner that is inconsistent with these expectations will be held accountable for those decisions and may incur disciplinary actions.

New to Unger employees have the following responsibilities. The willingness and ability to watch and listen to their mentor, establishing a positive attitude towards safety and the assigned tasks, learn to perform each task in a safe and environmentally sound manner, learn how to create JHA's and safe work plans, participate appropriately in safety meetings, refrain from taking short cuts and doing anything else that would jeopardize health or safety, stop unsafe acts immediately and correct unsafe conditions immediately.

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NFPA 70E
The National Fire Protection Association or NFPA 70E, are the principle regulations to establish minimum requirements for electrical safety. OSHA has adopted these regulations and they apply to every worker that may approach or be exposed to electrical energy. Only employees that are qualified persons are allowed to work on live electrical parts that are 50 V or higher. Qualified persons must perform live electrical work in compliance with the most current regulations. NFPA 70E outlines a four-step approach to electrical safety:
1) Turn off the power. Work de-energized, whenever possible. This isn't always feasible. When it is working on or near exposed live conductors and parts, NFPA 70E requires the following: 2) Live work permit. Have the customer sign an Energized Electrical Work Permit. 3) Plan the work. Have a written plan for performing the live work safely. 4) Use personal protective equipment. This includes flame-resistant (FR) clothing, insulated tools, face shields, and flash suits.

Work Practices: De-energization of electrical equipment provides the highest level of safety when servicing or maintaining electrical equipment. Working on live electrical parts should be avoided when possible and should only be performed in the following two scenarios: De-energizing the equipment creates additional hazards, such as shutdown of hazardous ventilation systems or life safety systems; and Equipment must be energized to allow for testing that can only be performed live. The following work practices must be followed when working on live electrical parts: Personal protective equipment (PPE) must be used when required; Conductive apparel (watches, bracelets, rings, key chains, necklaces, zippers, cloth with conductive thread, etc.) must not be worn; Non-conductive hand tools must be used and must be rated for the voltage at which live electrical work is being performed; Barricades and signage must be posted a safe distance away from the work area and unqualified persons must not be allowed in the work area; Conductive materials and tools must be kept a safe distance away from live electrical parts; and Electrical equipment must be restored to safe conditions and all safeguards must

be replaced when work is complete. Energized electrical work is permitted in the following situations: a) when an employer can demonstrate that de-energizing will cause additional or increased hazards. Examples of increased or additional hazards include, but are not limited to, interruption of life support equipment, deactivation of emergency alarm systems, and shutdown of hazardous location ventilation equipment. b) When de-energizing is infeasible due to equipment design or operational limitations. Examples of work that might be performed on or near exposed energized electrical conductors or circuit parts because of infeasibility due to equipment design or operational limitations include performing diagnostics and testing (e.g., start-up or troubleshooting) of electric circuits that can only be performed with the circuit energized and work on circuits that form an integral part of a continuous process that would otherwise need to be completely shut down in order to permit work on one circuit or piece of equipment

Energized electrical work on systems of 50 volts or more requires an Energized Electrical Work Permit signed off by an authorized representative of Unger Construction. When working "live" around exposed energized parts, NFPA 70E requires the following a Live Work Permit, at Unger Construction this type of work is covered under the Energized Electrical Work EEW) permit, some electrical firms use the term hot work permit. Both Unger Construction and the customer/client need to review and approve the energized electrical work permit.

Initial _____

Personal Protective Equipment (PPE)

Our basic PPE package includes a hard hat, high visibility top color, safety glasses, and sturdy work boots which shall be worn at all jobsites and work places. PPE is task specific and need to be evaluated to ensure it provides the proper degree of protection. For example when grinding, cutting, chipping tasks are being performed safety glasses alone do not provide adequate protection. Safety glasses plus goggles or face shields shall be worn whenever there is exposure to injury from flying particles, or splash, or other harmful exposures. When working with toxic, corrosive, poisonous, or other potentially dangerous chemicals or materials, you will be advised of the hazards and instructed in the safety precautions that must be taken. Appropriate personal protective equipment will be provided along with training in the proper use of the equipment. You are expected to use and maintain the equipment as trained.

Initial _____

Powder-actuated tools

Powder –actuated Tools (Hilti, etc.) may only be used by a worker with a valid operator's card. All such tools must be unloaded while not in use. Signs should be posted in obvious locations warning other workers that powder-actuated tools are in use. Never point powder-actuated tools at anyone.

Initial _____

Power Tools

Due to the nature of the hazards and the potential for serious injury specialized work techniques are required when operating power tools and equipment. Workers must understand, and be able to control the hazards associated with power tools and equipment. All tasks involving power tools and equipment require an extra level of work preparation, awareness, and attention during use to prevent injury or incidental damage. All power tools and equipment shall be used in accordance to the manufacturers intended design and function and per their written instructions. Safety devices, covers, shields, interlocks and alarms shall be fully functional as the manufacturer intended for them. Power tools and equipment cannot be modified or altered in any way without written approval from the manufacturer or formal approval from a Professional Engineer registered in the State of California. Additionally, approval shall be received from Unger Constructions Director of Safety, Director of Risk Management and the Vice President of Operations. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, warnings and limitations. Power tools and equipment shall be only operated, serviced and repaired by qualified personnel. The operator is primarily responsible for the safe operation of equipment. They must have knowledge of the safety regulations applicable to the equipment and its operation.

Pre-task plans must be developed for each power tool and piece of equipment. Operators and supporting cast members shall read and sign the Pre-task plan before beginning work. The pre-task plan shall list corresponding potential hazards for each task and the methods to eliminate or control hazards. Tasks should be listed sequentially, in the order in which they will be performed. Procedures must be developed by the worker to eliminate the potential for a safety incident (cutting the wrong line, too many lines, puncturing, penetrating, into an unexpected item) Personnel protective equipment (PPE) requirements for power tools and equipment are task specific, however, typical PPE includes (gloves, glasses, face shield, respirator)

The following is a list of examples where the work conditions can adversely affect the safety of working with power tools or equipment; they shall be addressed in the pre-task plan. Work done off the floor, Working in limited standing or movement areas, especially on ladders (use platforms or scaffolds), Work in cramped quarters, Line of sight problems (visual obstructions),Interfering pipes, racks, or conduits, Limited reach or maneuvering in cramped or isolated work spaces, Improper body positions requiring extended reach for lengthy periods of time, Poor leverage resulting the inability to position tools optimally, Poor lighting hazards - darkness, glare, Working on unstable surfaces, Work involving hazardous energies (chemicals, electrical, etc.)

Corded tools and extension cords shall be inspected before each use. The inspection shall look for defects or damage to the mechanical restraints, caps, connectors, damaged or missing conductors, insulation that is damaged, frayed stressed or nicked. Suspect tools or cords shall be taken out of service (red tagged) or immediately repaired by a qualified individual. Subcontractors shall submit their corded tools and extension cords to Unger Construction for inspection when they first mobilize on the job site. Extension cords shall be heavy-duty construction grade. Unger Construction does not utilize an assured grounding program preferring instead to follow a 100% ground fault circuit interruption (GFCI) program. All corded tools and extension cords must be connected to a GFCI. GFCI’s themselves must be inspected and tested monthly. Units that fail the test shall be destroyed and discarded.

Extension cords which cross a normal travel path must be covered with rubber threshold cover plates or other non-conductive means of protection. Extension cords shall not be routed through doorways, panels or covers without some means of protecting the cord from damage.

Operators of power-driven equipment shall make a careful inspection of such equipment at the beginning and end of each shift. Any defects must be reported to your supervisor immediately. If the unit is provided with a seat belt the operator must wear it. Equipment cannot be used to transport workers or materials unless it was specifically designed to do so. All equipment shall be safely parked, and the brake set before leaving the equipment. Backup warning alarms shall be provided as required by OSHA standards. All warning alarms, if provided, shall be operational. Disabling alarms or warning devices will not be tolerated.

Before starting power tools or putting equipment in motion, always make certain there is no danger to other persons created by the operation of power tools or equipment.

Set up: The work location must be properly set up. To include proper body positions, work space, footing, clamping, visibility, lighting and clearance.

Inspection: All power tools and equipment must be inspected prior to use to confirm they are in good, safe working condition. Safety guards, shields and protective devices must be properly positioned and functional. Bits blades, wheel and other consumable accessories shall be in near new condition before starting the task Worn or defective consumable accessories must be removed from service immediately.

Performing tasks with power tools and equipment: Check clearances 360 degrees around the point of work. Place high visibility flags on nearby lines or items of concern so workers can clearly distinguish items in the proximity, which should be avoided. Select the size of the blade or bit to reduce over-penetration or excessive blade exposure. Have 3-dimensional awareness of the point of work. Determine what is behind, within, or on

the opposite side, of what you are about to drill or cut. Eliminate potential interference's prior to cutting or drilling. Coordinate your activities with others working around you. Be aware of others working around you; don't let others work below you. When not in use, power tools must be disconnected from their power source, and properly stowed. It is unacceptable to leave power tools or equipment operating unattended.
Power tools cannot be used to cut lines (pipes, duct, conduits or other services) while they are within a pipe rack or other supporting structure. The lines to be cut must be removed (released from their clamps and positioned outside of the rack or support structure) such that the probability of an accidental or unintentional cut to neighboring lines is zero. After cutting or drilling, sections may be awkward, unstable and/or heavy. Provide support straps, slings, and lifting devices, or jacks to control gravitational forces.

Torque due to binding of the blade or bit can cause an imbalance or momentum transfer causing the tool or object to move unexpectedly. Anti-torque handles must be installed when the potential for torque related injury exists.

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Pre-Task Planning (PTP)
The principal approach to reducing accidents and injuries is through proper evaluation of workplace hazards and the selecting the proper means and methods to reduce both the possibility of an injury and if an injury were to occur the severity of that injury. Pre-task planning has been found to be one of the best injury prevention tools for construction workers. The PTP program is focused on the foreman and their crew and is used for the typical low hazard tasks that they would perform without intervention from a project superintendent, project manager or division safety manager. Typically the PTP will have less than 10 steps. For tasks that take more than 10 steps consider splitting the work into 2 separate PTP's. Determine the hazards involved with each step and appropriate methods of control. Pre-task planning is done to ensure all crew members have a common understanding of the task at hand, the potential for injury and the methods used to control and reduce the potential for injury. As the name implies Pre-task planning are held before tasks are actually performed. The forms are generally completed by the foremen or lead person or a crew member who has more experience on the particular task. The meetings are conducted by the foremen or lead person or in some instances by the person that is most familiar with the task at hand. All members of the work crew attend and initial the read and understood section. Members that arrive later need to go through the Pre-task plan and place their initials on the read and understood section. When workers conduct pre-task analysis workers learn how to identify potentially hazardous tasks. Workers become directly involved in the safety process. The workers are in a position of being responsible for their own wellbeing. This has the effect of making safety an integral part of the work being performed, a natural component of performing the work. An additional benefit of Pre-task planning a) it's simple b) its effective c) it's a means to share productivity and safety knowledge with junior employees.

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Proposition 65
Chemicals that are known to cause cancer or reproductive harm are listed as proposition 65 chemicals. Each jobsite will have a Proposition 65 poster that includes the following language: "WARNING – Working in this area may potentially expose you to the following chemicals known to the State of California to cause cancer/birth defects/other reproductive harm". To learn more about these chemicals refer to their SDS.

Initial _____

Rated Capacity
All has a maximum weight capacity. The maximum weight that the PIT is designed to lift is determined by the manufacture and will vary based on the height and reach distance. The rated capacity of a PIT can be found on the identification plate on the vehicle and/or in the manufacture's operator manual. The value on the identification plate is a maximum value and can be misleading for units that have variable reach. The capacity for units that have variable reach is determined by the load charts and will vary significantly throughout the full range of the lift. Make sure you understand the lifts capacity before use. Knowing the actual weight and reach distance is critical to a safe lift. Don't guess at the weight or the reach distance use actual values. As an additional layer of protection Unger Construction utilizes a working limit of 80% of the units rated capacity as

the maximum load the unit can carry while on an Unger construction site. Don't exceed 80% of the rated maximum value.

Initial _____

Raised Floor Tile

Due to the nature of the hazards and the potential for business interruptions, specialized work techniques are required whenever raised floor tiles are to be removed. When a floor tile is removed and the under floor area is open there is a potential for serious injury. Proper protective measure must be put in place. Raised floor environments can range in size from a few hundred square feet to more than 100,000 square feet. The height from the subfloor can range from 6 inches to several feet. The raised floor tiles serve multiple purposes which may not be obvious. In essence they distribute weight and transfer loads functioning as an integral part of the structural stability of the floor. Additionally, they serve as a plenum for under floor air conditioning. Air is forced under the floor and vented into critical locations with special air flow panels. Removing raised floor tiles will alter both the structural stability of the floor and the air flow patterns which could disrupt the cooling requirements for sensitive equipment resulting in overheating, and potentially equipment failure. Raised floor tiles come in a variety of configurations and compositions each with a unique functionality. Tile color and composition can be indications of the tiles purpose and rating. Weight ratings can range from 300 pounds per square foot to over a thousand pounds per square foot.

Initial _____

Removal of Conduit

Due to the potential for serious electric shock injuries and/or significant business interruptions, specialized work techniques are required to remove, relocate, demolish or otherwise change the position of conduit. Conduit being defined as: metallic, intermediate metal conduit (IMC), threaded, rigid, metal clad, nonmetallic, flexible metal, liquid tight, non-metallic sheath, polyvinyl chloride (PVC), high density polyethylene (HDPE), wire mold, cable trays, race ways, wire ways and other forms of electrical cable or life safety systems tubing management. Before any employee is allowed to perform work removing conduit they must first receive training. Each employee must demonstrate an understanding of the required training to their supervisor, before being allowed to perform work.

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Removal of Drywall

Due to the potential for catastrophic injuries and or significant business interruptions, specialized work techniques are required to cut, remove, relocate, demolish or otherwise change the integrity of drywall. Drywall cutting and removal is one of the highest dust producing activities encountered during most projects. Cutting drywall can never be dust free but the following steps used together can dramatically reduce the risk of airborne particles leaving the construction area and contaminating occupied spaces. When working in occupied healthcare settings airborne particles are a significant concern, as they are an effective transporter of airborne bacteria. Dust can lead to patient infection and has been directly linked to patient deaths. Drywall dust is a concern for food service and high technology clients and should be treated similarly to healthcare settings. Depth control is paramount to prevent catastrophic injuries and or significant business interruptions. Use a blade that is only the depth of the drywall to ensure no damage occurs to framing members and utilities beyond the drywall.

Initial _____

Respirators/Dust masks

Anytime you could potentially be exposed to harmful dusts, fumes, vapors or gases you will be given a pulmonary function test, properly fitted for respiratory protection equipment, and trained in the use of the respiratory equipment. It is your responsibility to use this equipment as trained and immediately report any problems, defects, or difficulties to your Supervisor. 2 strap dust masks or N95 dust masks cannot be worn unless the worker has a current medical evaluation on file and proof of training. Workers that wear a respirator must have a current medical evaluation, a fit test (quantitative/qualitative) and proof of training on file.

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Sanitation
Toilets shall be provided at a rate of 1 per each portion of 20 employees, per sex. Hand wash stations and trash bins shall be provided for each sanitation area. Toilets shall be service twice per week.

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Site Requirements for Postings
OSHA postings must be placed in a conspicuous location where employees can readily view the postings regardless of staffing levels. For crews without an on-site office the OSHA postings can be arranged in a binder. Postings must include emergency response contacts, medical clinic contacts, and minimum wage. Powered industrial vehicle (PIV) information must be posted if a PIV will be used at any time on the site.

Initial _____

Training and Instruction
Before any employee is allowed to perform work they must first receive training. Each employee must demonstrate an understanding of the required training to their supervisor. Training will be provided to all employees given new job assignments for which training has not previously been received. Additionally, whenever new substances, process, procedures or equipment are introduced to the jobsite training will be provided. Proof of training is available on the "S" drive. The training data base can be sorted by employee name or by subject. This ensures supervisors and employees are able to confirm they have the necessary training and if they don't which employees do. Employees that need training should contact their project manager or superintendent to make arrangements for them to be trained. The need for retraining will be indicated when: an employee's work habits or knowledge indicate a lack of necessary understanding, motivation or skills required, new equipment is installed/purchased, changes in the workplace make previous training obsolete, or upon a supervisor request.

Initial _____

Scaffolding
Before any worker is allowed to perform work in areas requiring scaffolding, they must first receive training. Scaffolding has three levels of training. Scaffold awareness training is required before walking on a scaffold; anyone preparing to walk on a scaffold must either attend a scaffold awareness training class or present proof of training before they will be allowed to walk on a scaffold. The focus of the training is the typical hazards associated with working on a scaffold including but not limited to; personal fall protection, falling objects, clearance from electrical hazards, elements/components of a scaffold, scaffold use/protocol, load capacity, access requirements and taking a scaffold out of service. This training is instructor lead and can be completed in an office or class room environment. Scaffold inspector or competent person training which is required for anyone performing the Day One Inspection or Daily Pre-use inspections. The focus of this training is on the structural elements and integrity of the scaffold. This training is a combination of class room instruction and hands-on inspection. Scaffold erector training is required for anyone erecting a scaffold. This training is a combination of class room instruction and hands-on participation.

No worker is to access a scaffold unless a competent person has inspected the scaffold and deemed it safe for use. The competent person shall inspect the scaffold daily and install a "green" tag to the scaffold to indicate the scaffold is safe to use. A "red" tag will be used to indicate the scaffold is unsafe and no worker is to enter and use the scaffold until it is deemed to be safe. No worker is to access a scaffold unless the worker has received training on the safe use of the scaffold. If you are not trained on the safe use of a scaffold, let your supervisor know and training will be provided.

Before you mount the scaffold inspect your work area for potential hazards for example: overhead obstacles, overhead sharps, changes in floor elevation (holes, curbs), debris, cords, and/or poor body posture due to the positioning of the scaffold. These potential hazards must be addressed before starting your work. Before starting your work ensure that the area around the scaffold has the proper amount of clearance for vehicles and pedestrians to pass by safely.

Perform a visual inspection from the access point to your work area every time you walk on the scaffold. If at any time the scaffold appears to in need of repair or is unsafe stop your work and report the situation to Unger Construction directly. You are not allowed to alter or modify the scaffold in any way (this includes temporarily removing plank boards, railings or supports) without written permission from Unger Construction. Access hatches for internal ladders must be closed by the person that opens the hatch. Don't place tools or materials on the access hatch. During use keep the platform free from trip hazards. Do not allow loose objects or debris to accumulate on the platform. Do not use the scaffold if you are in poor health or taking medication which may impair your ability to work safely.

Guardrails are required anytime the fall potential exceeds 7 ½ feet. The top rail of a guardrail must be between 42-45 inches from the walking surface; these are hard dimensions and not estimates. The mid rail must be halfway between the top rail and the walking surface. Guardrails must resist a load of 200 lbs. in all directions except up. Guardrails must be provided on all open sides and ends of all built-up scaffolds, runways, ramps, rolling scaffolds, elevated platforms, surfaces, and other elevations seven and one-half (7-1/2) feet or more above the ground, floor or level underneath.

Adding wind screens, shade cloth, weather protection, debris shields to a scaffold requires an engineering review and approval via a wet stamp from a PE. The engineer will also determine the acceptable wind loading and will provide a shutdown criterion.

Rolling Scaffolds: Before mounting the scaffold always lock the brakes on the casters. Wheels of rolling scaffolds must be provided with a locking device. At least 2 of the wheels shall be swivel type. Wheels must be locked when working on a rolling scaffold. To mount the scaffold, climb the end frame. End frame ladders and guardrail end frames must be inspected for loose or missing caster bushings and/or stack pins. Casters must be checked for worn or damaged wheels, missing or damaged snap rings. Wheels should spin freely, bearings should pivot freely. The locks, pins, springs and nipples should be lubricated weekly, when the scaffold is in use. Mobile scaffolds are conductive do not use near energized, exposed electrical conductors. Maintain at least 10 feet of clearance.

To move from one location to another on rolling scaffolds that do not have a top mounted breaking system. The user must climb down from the platform unlock the casters and move the scaffold to the new location. Do not self-propel (surf) from one location to another unless all of the conditions listed in the surfing section below have been met. Workers may ride a scaffold being moved by others if; the floor is within 3 degrees of level. The floor is free of holes, elevation changes, cords, or debris (broom clean). The scaffold height cannot exceed 2 times the minimum base dimension. Manual force applied at the base is not more than 5 feet above floor level. Surfing (self-propel) can be performed as long as the floor is within 3 degrees of level, the floor is free of holes, elevation changes, cords, or debris (broom clean), the scaffold height cannot exceed 2 times the minimum base dimension, the platform is less than 4 feet above grade, the platform is not less than 20 inches wide, the scaffold is equipped with locking devices for the brakes that can be operated while the worker remains on the platform. While surfing the worker must be in the center of the scaffold. Surfing: can be performed as long as all of the conditions listed above are met and the platform is less than 4 feet above grade, the platform is not less than 20 inches wide, the scaffold is equipped with (Top Plate) locking devices for the brakes that can be operated while the worker remains on the platform.

Mobile scaffolds are subject to tipping over with relatively low side-load forces <100 pounds or impacts. The maximum distributed load of a single base section is 1,000 pounds. The safe working load per square foot depends on the length of the scaffold. (4' = 100 lbs., 6' = 73 lbs., 8' = 50 lbs., 10' = 43 lbs.) Do not overreach. Keep your body within the boundaries of the guardrail and scaffold section. Do not stand on the guardrail or use any components of the guardrail to gain additional standing height. Do not place ladders, boxes or any other such devices on the platform to gain additional standing height.

The most common type of mobile scaffolds (Perry, Baker, New Wave) are to be used exclusively in the interior of a building. They are not rated for exterior work on asphalt, rock or soil. Refer to their owner's manual for this exclusion.

Initial _____

Spill Procedures

The purpose of this program is to ensure the protection of employees and subcontractors from the hazards associated with chemical spills. Before any employee is allowed to perform work with chemicals or participate on the emergency response team (ERT) they must first receive training. Each employee must demonstrate an understanding of the required training, and the ability to use spill equipment and PPE properly, before being allowed to perform spill cleanup. The training will include the following subjects: Reviewing SDS's, Spill response procedures, general first aid and categories of spills; simple or complex. The potential for spills can be minimized by proper storage, handling techniques and housekeeping practices. Generally speaking the individual(s) who caused the spill is responsible for prompt and proper clean-up. Minor or simple spills do not necessarily need the assistance of projects emergency response team (ERT). Workers who have had the proper training and possess the appropriate equipment can safely and effectively handle the majority of the spills that occur.

Spill Response Plan: Each project and subcontractor within the project should evaluate the potential for spills and develop a spill response plan. Supervisors and foreman are responsible for developing Spill Response plans. Spill response plans shall be approved by the Unger Construction Project Manager, Superintendent or Safety Director. Spill plans shall be developed and spill response kits before the first chemical arrives on a project site. The chemicals and materials commonly used on Unger Construction projects are separated into three categories: Powders, Non-flammable liquids and Flammable liquids.

If a spill occurs, a quick appropriate response can prevent serious consequences. However, the wrong response can make things worse. Knowing the potential hazards and preparing for them in advance will have a dramatic influence during an actual spill event. The first source of information to consult is the Safety Data Sheets SDSs). The spill response plan will, of course depend upon the physical characteristics and volume of materials being handled, their potential toxicity, and the potential for releases to the environment.

Spills can be either "Simple Spills" or "Complex Spills". Cleanup procedures shall be developed to give guidance to knowledgeable personnel on the safe and effective way to clean up small spills. If you have any questions or concerns about the spill cleanup process, contact your supervisor, or Unger Constructions superintendent.

Spill Response Kits: Spill response kits shall be placed in areas where the potential for a spill exists. The spill kits shall have absorbent pads, flexible berms and other materials. Spill kits shall be highly visible and are located in the emergency response area. Spill response kits should be staged well away from the material in question to prevent it from becoming captured by the spill and rendered inaccessible. However, the spill kit should be in relative proximity such that timely response is ensured.

Sample Spill Plan: The following is a generic spill response plan based on the three common form of chemical or materials used on a construction site. Follow the procedures provided below based on the class and type of material. Nonflammable Liquids: Control the spread of the spill with a dike or adsorbent spill materials. Adsorb the spill with dry sand, kitty litter, inert clay or vermiculite, diatomaceous earth (adsorbent spill materials). Spread the adsorbent over the spill starting with the edges first working from the outside, this will help to confine the spill to a smaller area, circling to the inside or center of the spill. This reduces the chance of splash or spread of the spilled chemical. Spread enough adsorbent over the spill to completely cover the liquid. Adsorbent should be distributed over the entire spill area there should be no free liquid. Do not walk through the spilled material. When spilled materials have been absorbed, use the plastic scoop to pick up the adsorbent and

place it in a polyethylene bag. Seal the bag with tape and attach a sticker or label on the bag identifying the material and the date of the incident. Dispose wastes by following the instructions in the SDS.

Flammable Liquid Spills: Immediately alert other workers in the area extinguish all flames, and turn off any spark-producing equipment. Remove all potential sources of ignition (motors, pumps,) it may be necessary to shut off power from a remote circuit breaker. Determine if supplemental ventilation would improve the situation by diluting or assisting in the evaporation of the liquid. This determination needs to be considered carefully fans could greatly extend the area in which fumes could spread causing other areas outside of the spill to be evacuated. Provide supplemental ventilation using pedestal, carpet or breeze box fans to dilute the gas concentration and provide fresh air to the space. Control the spread of the spill with a dike or adsorbent spill materials. Adsorb the spill with dry sand, kitty litter, inert clay or vermiculite, diatomaceous earth (adsorbent spill materials). Spread the adsorbent over the spill starting with the edges first working from the outside, this will help to confine the spill to a smaller area, circling to the inside or center of the spill. This reduces the chance of splash or spread of the spilled chemical. Spread enough adsorbent over the spill to completely cover the liquid. Adsorbent should be distributed over the entire spill area there should be no free liquid. Do not walk through the spilled material. When spilled materials have been absorbed, use the plastic scoop to pick up the adsorbent and place it in a polyethylene bag. Seal the bag with tape and attach a sticker or label on the bag identifying the material and the date of the incident. Dispose wastes by following the instructions in the SDS.

Powders: Spills of powders should be swept up carefully to avoid contaminating the air and creating an inhalation hazard. Do not add water, use blowers or pressurized airlines this will simply make a bigger mess and contaminate a larger area. Do not walk through the spilled material. Use the plastic scoop to place the spilled material into the polyethylene bag. Care should be taken so as not to create excessive dust or to cause the powder to become airborne. Dispose wastes by following the instructions in the SDS.

Spill Response Procedures: When a spill occurs communicate with workers in the immediate and surrounding area(s). Inform them of the nature of the spill; suspect materials, relative extent of the spill, complexity of the spill and the initial safe zones that need to be established. Activate the emergency response team providing the same information to them. Spill response and recovery protocol will be based on the nature of the material (non-flammable liquid, flammable liquid, or powder) and the potential hazards associated with each. Before taking any action, be sure you are not endangering yourself. Determine if the spill is “Simple” or “Complex”. A spill is “Simple” if; no one is injured, the material(s) involved has been identified, the material is not toxic or reactive, the appropriate clean up materials or PPE are available and the spill is not spreading. A spill is “Complex” if; anyone is injured, the material has not been identified, the material is toxic or reactive, appropriate clean up materials or PPE are not available (note: If an air purifying respirator or self-contained breathing apparatus are needed workers must be; properly trained, fit tested and authorized to respond), the spill is spreading, or a fire or explosion is involved with the spill.

If anyone is injured or contaminated immediately activate the ERT. If you are trained in the hazards and protective equipment of the chemical you can begin to contain the spill and decontaminate the worker.
If additional resources are needed or if no one knowledgeable about spill clean-up is available contact your supervisor, Unger Constructions Superintendent or Unger Constructions Safety Director.

Evacuate the affected area, alert others near the area of the spill and have them evacuate too. Secure the area with warning tape, or post staff outside of the affected are so personnel cannot enter the area.
Follow the spill response plan. If you are not aware of the spill response plan take the time to develop one before you proceed. Reviewing the Safety Data Sheets (SDSs) for spilled materials and follow the recommended spill cleanup methods, materials and personal protective equipment (PPE). Acquire sufficient quantities and types to contain and clean the spill.

Cleanup Procedures: In the event of a spill review the spill response plan or develop a spill response plan by reviewing the Safety Data Sheets (SDS’s) for the recommended spill cleanup methods, materials and personal

protective equipment (PPE). Before you proceed make certain you have all the appropriate are training, knowledgeable and equipped to handle the incident. Never proceed to clean up a spill if you do not know the hazards associated with the material or if you are unsure of how to clean up the spill. Don the personal protective equipment from the spill kit; splash goggles and gloves.

Initial _____