



Environmental Health & Safety
FIELD GUIDE





A LEGACY IN
Extraordinary Craftsmanship
SINCE 1980

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INTRODUCTION

It is the policy of Woodmeister Master Builders to provide a safe and healthful work environment for all employees. Each employee is expected to comply with all safety and health requirements whether established by the company or by Federal, state or local law.

Our goal is to minimize injury, illness and property damage caused by accidents, fire or other hazards. The most desirable outcome for Woodmeister is that every employee goes home to their loved ones in the same condition they came to work.

In order to achieve excellence in safety and health, the Company is committed to:

- Develop and establish operating methods, which protect employee well being.
- Maintain compliance with federal, state and local laws, regulations and rules.
- Insure the Safety Committee meets regularly to review and upgrade safety performance.
- Recognize progress through regular inspections and audits.
- Take immediate action where necessary to remove unsafe or unhealthful conditions.

In order to assure that employees follow the safety policies of the Company and to assure that the enforcement of these policies are dealt with in an equitable manner, the Company maintains a system of progressive discipline similar to discipline in the employee handbook related to general personnel policies.

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General Rules For Safety

CHAPTER 1

General Rules For Safety

Environmental Health & Safety

General Rules For Safety

1.1 What Safety Means

Safety means:

- Complete understanding of your work
- A knowledge of every step that must be taken
- The realization that mistakes could be costly TO YOURSELF and TO THE COMPANY
- Good judgment
- Never relying on luck
- Being prepared to cope with unexpected situations
- Being alert when following your routine

Safety Means Consideration:

- For the family that depends on you
- For the company that employs you
- For your own welfare

Safety means remembering the safety rules set up by your company and applying them *EVERY MINUTE* when you are on the job.

REMEMBER: A single risk might mean an accident from which you might never recover.

1.2 General Rules for Safety at Work

Lifting

- Always use proper lifting methods
- Get help for heavy loads

Falls and Falling Objects

- Look before you step
- Keep all work areas clear
- Stay out from under loads
- Do not use unsafe ladders
- Install guardrails on scaffolding

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Stepping on Nails

- Remove all nail hazards.
- Look before you step.

Openings

- Properly cover floor openings.
- Install guardrails.
- Keep barricades in place.

Protective Gear

- Wear your hardhat
- Protect your eyes with appropriate glasses or goggles.
- Always wear the appropriate protective gear.

Housekeeping

- A clean job is a safe job.
- Dispose of waste material properly.

Unsafe Use of Tools

- Remember that power tools are dangerous.
- Keep guards in place.
- Wear appropriate personal protective equipment.
- Protect your co-workers.
- Stop and unplug equipment to make adjustments.

Unsafe Tools and Equipment

- Inspect tools and equipment regularly.
- Report all defects to your supervisor.
- Always use the right tool.
- Always secure tools safely when not in use.

Teamwork

- Plan all work with safety in mind.
- Always be aware of and protect all workers on a jobsite.

REMINDER: Safety can be learned.

General Rules For Safety

1.3 Job Site Safety

Job Sites Shall Have the Following:

- A charged (foam) fire extinguisher
- First Aid kit
- Eye wash kit
- Emergency Evacuation Plan
- Emergency telephone numbers
- Hospital locations
- Personal injury reports
- Safety suggestion sheets
- All job sites must have access to up to date M.S.D.S. sheets.

Job Site Cleanliness:

- At the end of each work day or more often as needed.
- All job sites shall be provided with a dust pan/brush, broom, and vacuum.
- Dust prohibitor should be used.
- All hallways, walkways, and doorways shall be kept clear of debris.

Work Attire:

- Clothing shall not be loose fitting or hanging as it may be pulled into moving parts.
- It is recommended that employees wear work boots on job sites or in the shop.

Personal Safety Equipment:

- All employees in the field or the shop shall wear safety glasses.
- Hearing protection must be used in high noise areas in the field and the shop.
- Hard hats (Class A) must be worn on job sites with any overhead construction activity.
- Anti-vibration hand protection should be used when using vibrating equipment for long periods of time.

Power Tools:

- All large tools such as chop saws, etc. must be attached to a stand or work station.
- All small tools should be kept off the floor to prevent accidental start up.
- All power tools must be kept sharp and in good working order. This includes cleaning and maintenance.

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- Any tool in need of repair shall be taken out of service and tagged for repair of replacement.
- Work areas around the power tools shall be kept clean and free of debris.
- All safety guards shall be installed and be in good working order.
- All tools must be used for the job they are designed to do.
- Any person not familiar with a tool must be instructed by a competent person before use.
- Always keep saw blades sharp and adjusted to the correct height to prevent kickback.
- Always use a push stick to move material past the blade.
- Never cut freehand, this increases the risk of kick back.
- Unplug any power tool before changing a blade or doing any repairs.
- Never walk away from a tool with the blade or bit still moving.
- Always use an extension table or a stand when cutting long material.
- All power tools must be inspected at the end of each workday.

Power Activated Tools:

- Training is required to use this tool.
- Operator of this device must use the appropriate load size and fastener size for the job.
- If the power activated tool misfires, the user shall hold the tool in the operating position for no less than 30 seconds before trying to fire again.
- Never fire at or near anyone.
- Always wear eye, face, and hearing protection at all times.
- Always load the fastener first then the load.
- Never shoot into a wall without checking the other side.
- Make sure all safeties are in place and work.

Pneumatic Tools:

- Make certain all safety mechanisms are in place and in good working order.
- All tools shall be maintained and in good working order.
- Make certain to use the correct fastener for the tool.
- Inspect all tools and hoses for damage replace or repair as needed.
- Never carry a tool by the hose it may disconnect and strike someone nearby.
- Always adjust air pressure to the tool specifications.

General Rules For Safety

Hand Tools:

- All hand tools must be used only for the job they are intended.
- Hand tool must be kept in good repair at all times. A dull tool is a dangerous tool.

Electrical Cords:

- Make certain to use a cord that can deliver the power needed without overheating the cord.
- Not enough amperage to a tool can cause damage and shorten the life of the tool.
- Worn or damaged electrical cords may cause electrocution or fire.
- Electrical cords shall be inspected for any damage before using, if damage is found, the cord will be tagged for repair or replaced.

Electrical Connections:

- G.F.C.I. shall be used for all electrical connections.
- G.F.C.I. must be tested on a regular basis.

Air Quality Control:

- Air filtration systems should be used to improve job site air quality.
- Seal off work areas to contain dust or fumes to the designated area.
- Use dust masks or respirators in work areas containing dust or fumes.
- Use dust reducer to cut down on the amount of airborne dust.

Illumination:

- All work areas must have sufficient light so everyone can work safely.
- All hallways and stairways must have lighting to ensure safe entry/exit.

Sanitation:

- An adequate supply of drinking water must be provided in all places of employment.
- Portable containers must be capable of being tightly sealed.
- All portable water dispensers must have a tap.

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1.4 Field Safety

1. Incorporate information into Monday morning meetings. Include one safety subject per meeting, information about a recent incident, why it may have happened, and what we can do to prevent it from happening on our jobs.
2. Include new product information that may increase job safety, availability of the new product, and the need to incorporate new products.
3. Set up training clinics for safe use of tools, equipment, and materials we find on our job sites.
4. Supply suggestion sheets on job sites. Feedback from you will help make the job site safer for everyone. What can we change? What can we do? What do we need? What can you do?
5. Incorporate suggestion sheets into monthly meetings to share ideas with others in the field.
6. Heavy equipment awareness training (Dangers to look for on construction sites.)

1.5 Vehicle Safety

All company vehicles must have the following items:

- One charged (Class B, C) fire extinguisher
- One First Aid Kit
- Eye Wash Kit
- Safety reflectors/flares
- Accident Reports vehicle/personal
- Maintenance reports of the vehicle
- All vehicles must have an up-to-date M.S.D.S. sheets

Vehicle Safety:

- No employee under the influence of drugs or alcohol will be permitted to operate a company vehicle.
- All employees will be required to wear a seat belt in company vehicles
- All company vehicles shall be operated in a safe manner at all times.
- All tools or materials stored in the vehicle shall be secure.

General Rules For Safety

- Any safety issues with the vehicles must be addressed immediately.
- Any accident shall be reported A.S.A.P.

1.6 Teamwork

Teamwork keeps workers SAFE and production HIGH on any job. Teamwork prevents accidents. All we have to do is think of the other person's safety as well as your own.

Think about driving as one example of teamwork for safety:

- Safe drivers not only look out for their own safety, but make sure they do not endanger the lives of other drivers.
- They give up their right-of-way to help another driver.
- They slow down to let a driver cut back in after that driver has tried to pass and discovered a vehicle coming in the other direction.

It is not just a matter of one driver having the right-of-way or being right; it is a matter of a little teamwork to prevent accidents. The safe driver knows that someday, it may take teamwork from some other safe driver to prevent an accident.

WHAT APPLIES ON THE ROAD ALSO APPLIES ON THE JOB. It is not just a matter of your working safely and following all the rules yourself. You must think about the other person's safety too. You must lend a hand once in a while to prevent or avoid an accident that may involve another worker. You can never tell what kind of situation will require teamwork to prevent an accident. You must solve each situation by working together and helping other people on the job.

REMINDER:

- If you have suggestions for making the job site a safer place to work, let others know about them.
- If you see something wrong, correct it yourself or report it and make sure that someone takes care of it.
- If a job is too big for one person, get help.
- Think for the other person, his or her safety **MAY DEPEND ON YOU!**

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1.7 Teamwork: The Winner is Safety

A safety team is like an athletic team: to win, its members must practice coordination and cooperation. In other words, teamwork.

- A good safety program needs the full-time cooperation of all workers.
- You can make a winning safety team by knowing the hazards in your work, being aware of potential problems in other crafts, and working together to correct problems and coordinate efforts.

Supervisors must get together with all crafts on the jobsite to discuss hazards and work together to correct them. Each supervisor should PERSONALLY check work areas before work begins and correct any hazards IMMEDIATELY.

All of us want to be on a winning team. Let's practice near-perfect teamwork to have a WINNING SAFETY TEAM.

REMINDER - LET'S WORK TOGETHER AND MAKE EVERY DAY "SAFETY DAY!"

1.8 Signs Without Words

Everyone who drives an automobile is familiar with the traffic signal light, the stop sign, the railroad crossing sign and others. How many of us are familiar with the warning signs on the job? SIGNS WITHOUT WORDS include protruding nail, the unmarked, open trench, and the mushroomed head of a chisel. If we recognize them as signs of trouble pointing the way to an accident, we can avoid the accident. We should all observe signs without word and correct them. WE DO NOT WANT ANYONE HURT ON THE JOB.

Some people shrug off warning signs. When you see a sign of trouble, remove it or advise your supervisor even if it isn't bothering YOU. You could possibly save co-workers from accidents.

Do not leave the hazard for the next person. The next person may not see it, or the next person MAY BE YOU on the return trip.

REMINDER - Watch for signs that hazards may be present, and then correct them. EACH CORRECTION MAY BE AN ACCIDENT PREVENTED—MAYBE YOUR OWN.

PRESENCE OF MIND MEANS ABSENCE OF ACCIDENTS.

General Rules For Safety

SHORTCUTS

All of us have exposed ourselves to possible injury by taking shortcuts when a few extra seconds would have meant doing something the safe way. We did this as children when we jumped the fence instead of using the gate. We do it today when we cross streets between intersections instead of at corners.

Many people show disregard for the fact that MINOR SAFETY VIOLATIONS MAY HAVE SERIOUS CONSEQUENCES. If any of you are in the habit of taking shortcuts, you must break that habit now. In our work, taking shortcuts can be deadly. ALL OF US KNOW OF INCIDENTS WHERE A THOUGHTLESS ACT WAS THE DIRECT CAUSE OF AN ACCIDENT.

The safe way is not always the shortest way. However, choosing the safe way is your personal responsibility.

- When you are told to go to work in a particular area, you are expected to take the safe route – not some shorter or more dangerous one.
- If there is no safe access to a particular job assignment, make sure that safe access is provided.
- Ladders or scaffolds are provided for high work. Use them. Even though a high job may take only a few minutes, do not climb on a falsework or use an improvised ladder or scaffold.

1.9 Protective Clothing

Proper safety equipment is necessary for your protection. The Company provides the best protective equipment it is possible to obtain. Use all safeguards, safety appliances, or devices furnished for your protection and carry out all regulations that may concern or affect your safety. Wear your gear properly - all snaps and traps fastened, cuffs not cut or rolled. Your supervisor will advise you as to what protective equipment is required for your job.

1.10 Hand tools

The employer shall be responsible for the condition of tools when furnished by him and the user shall inspect any tool prior to using it to determine that it is in proper operating condition. Defective tools shall be removed from service. Handles shall be sound, straight and tight fitting. Driven tools shall be dressed to remove any mushrooming. Cutting tools

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shall be kept sharp and properly shaped. Wood hooks and pickaroons of good grade steel shall be used. Tools shall be used for purposes for which they were designed. Hand tools shall be sheathed or boxed if transported in a vehicle with personnel. If not contained in a box, the sheathed tools shall be fastened to the vehicle. Proper storage facilities shall be provided for hand tools. Tools shall be stored in the provided location at all times when not in use.

1.11 Housekeeping

Good housekeeping not only improves the appearance of the work place, it also helps prevent fires, accidents and personal injuries. Clean workbenches, machines, lockers and floors also enable you to maintain a high standard of quality in your work. For your safety, do not leave tools, scrap, or materials piled on the floor where someone may stumble over them, or overhead where there is danger of them falling. When piling material, be careful not to exceed a safe height. Do not pile anything in front of or against fire fighting apparatus, electrical equipment or drinking fountains. If you are a machine operator, give your machine the best possible care and be alert for signs of wear or faulty operations. Handle tools carefully and store them so that they cannot cause accidents.

Safety Programs and Procedures

CHAPTER 2

Safety Programs and Procedures

Environmental Health & Safety

Safety Programs and Procedures

2.1 Safety Program Objectives

Safety and health programs strive to protect people, property, and the environment and must comply with governmental regulations. The objective of this guidebook is to assist in providing a safe environment for employees, patients, visitors, and construction workers in all areas during renovation or new construction projects.

Major objectives of a safety and health program are to:

- Protect employees, students, visitors, property, and the environment from potential hazards.
- Provide a safe and healthful workplace free from recognized hazards.
- Comply with all governmental safety, health, and environmental standards.
- Maintain an effective health and safety program, which includes managers, supervisors, and employees.
- Cooperate with building occupants and others involved in the work area to maintain a safe and healthful workplace.

2.2 Basic Safety Rules

1. Vehicles must observe the posted speed limit.
2. Obey all posted warnings
3. Smoking is permitted in designated areas only
4. Fighting or horseplay is prohibited
5. Firearms are not allowed
6. Job site personnel must remain in designated areas at all times and use approved travel routes into and out of the site.
7. Work areas must be maintained in an orderly manner that does not block exits or traffic through the work area.
8. Trash must be removed daily

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2.3 Special Procedures and Work Permits

The following special procedures are specific to Woodmeister Master Builders. The work permits noted below are to assist in coordinating subcontractor work activities and WMB activities affecting the same systems. Failure to request these work permits in advance may result in a delay in work progress, Project Manager/Site Supervisor interaction, possible contract deficiencies, and may place future contracts in jeopardy.

Hazard Communication and Chemical Safety

1. Job site personnel shall have copies of Material Safety Data Sheets (MSDS) available at the job site for review by the Project Manager/Site Supervisor and the Occupational and Environmental Safety Office (OESO) at all times.
2. **Chemicals with strong odors and/or which are extremely hazardous often cause odor complaints and concerns among employees and visitors. MSDS's of materials that will produce strong odors and/or which are extremely hazardous will be forwarded, before use, to the Project Manager/Site Supervisor for review with the Occupational & Environmental Safety Office.**
3. To ensure that all employees know and understand the hazards of all chemicals they are exposed to and they know how to protect themselves from hazardous chemicals, each contractor must establish and maintain an effective hazard communication program. The program must comply with OSHA standard 29 CFR 1926.59.
4. The contractors HAZCOM program must provide:
 - A written hazard communication program,
 - An inventory of chemicals,
 - Material safety data sheets (MSDS) for all chemicals at the site,
 - Labeling of all containers and other warnings, and
 - Employee training.
5. **Asbestos containing materials.** Upon discovery of materials that may contain asbestos (Presumed Asbestos Containing Material, PACM) the subcontractor should contact the Project Manager/Site Supervisor. The Project Manager/Site Supervisor will then contact OESO for testing. Upon discovery of PAC the contractor shall not disturb the areas containing the PACM.

Safety Programs and Procedures

6. **Lead Awareness.** Before operations on any paint that may contain lead, the subcontractor should contact the Project Manager/Site Supervisor to arrange for testing.

7. **Fluorescent light bulbs & PCB containing ballasts disposal.**

- Personnel removing fluorescent light bulbs are responsible for examining the bulb to determine if the bulb should be recycled due to mercury vapor and lead content and making sure the bulbs are moved to a central collection point. (Green end caps or green writing indicates the bulb is environmentally friendly and can be disposed of with other construction wastes.)
- Personnel removing fluorescent ballasts are responsible for examining the ballast to determine if it contains PCBs (Polychlorinated Biphenyls), removing any PCB containing ballasts from the fixture, placing each ballast into proper containers, labeling the container to indicate that it contains PCBs and making sure the containers are moved to a central collection point.

8. **Plumbing work.** If liquid mercury is discovered in plumbing, notify OESO. Contractor plumbers should be trained in blood borne pathogen awareness. If employee exposure to human blood and/or bodily fluids is anticipated, Job site personnel must have documentation of Hepatitis B vaccination.

Hot Work and Fire Alarm Systems

- Hot work involving the use of open flames, welding apparatus, and spark producing equipment can result in fires and explosions.

Hazardous Work Permit Program

- **Chemical fume hoods** and related ductwork require hazardous work permit.
- **Biological Safety Cabinets (BSCs)** – The subcontractor will contact the Project Manager/Site Supervisor to request a hazardous work permit at least one week before moving or repairing cabinets or related duct work.
- **Cold/Warm Room and related equipment** – The subcontractor will contact the Project Manger/Site Supervisor to request a Hazardous Work Permit at least one week before moving or repairing Cold/Warm Room or related equipment. The room users will require sufficient time to remove items.
- **Rooftop work** may require a Hazardous Work Permit. The subcontractor will contact the Project Manager/Site Supervisor to initiate the Hazardous Work Permit at least one week before accessing the roofs.

Environmental Health & Safety

- **Steam tunnel work** involving welding or other operations that may create additional hazards will need a Hazardous Work Permit in addition to a Hot Work Permit. The subcontractor will contact the Project Manager/Site Supervisor to request a Hazardous Work Permit at least one week before starting such operations in steam tunnels.

Underground Utility Location

- Anyone proposing to excavate, dig, bore, tunnel, blast, or disturb the earth in any manner which may damage buried utilities is required to call Dig Safe at 1-888-344-7233, 48 hours (2 working days) before starting the proposed work. This 48-hour notification requirement is mandated by Massachusetts Law.

Utility Service Interruption

- Before any work involving the planned or possible interruption of utilities such as electric, water, gas, or steam services, a utility disruption permit is required.

Excavations and Trenches

- A daily inspection of excavations, the adjacent areas, and protective systems shall be performed by a competent person.
- Trenches more than 5 feet deep require shoring or sloping.
- Substantial barricades to prevent persons from falling into an open trench shall be maintained around the perimeter of trenches. This is especially important at the end of the workday for trenches that must remain open overnight. A plastic ribbon is not substantial for this purpose.
- Ladders will be provided at least every 25 feet for access to trenches over 4 feet deep.

Electrical Hazards

- It is very important that each subcontractor establishes and maintains an effective electrical safety-related work practices program. References for such a program include OSHA standards 29 CFR 1910.331 to 1910.333 – Electrical Safety-Related Work practices and CFR 1926 Subpart K Electrical.

Safety Programs and Procedures

- Training shall be documented for all employees who face a risk of electric shock from working on, near, or with electrical circuits, which are not reduced to a safe level by electrical insulation.

Lockout / Tagout

1. **The lockout/tagout standard** (the control of hazardous energy standard) in 29 CFR 1926.417 and 1910.147 will be followed by all job site personnels on all job sites. The OSHA lockout/tagout procedure requires at a minimum:

- Use of locks and/or tags on energy isolating devices
- Special lockout/tagout procedures for jobs requiring multiple lockout/tagout devices
- Contractors must provide their own lockout/tagout equipment
- All contractor employees, (authorized, affected, and other employees), must be trained by the contractor (or another acceptable training source) concerning lockout/tagout procedures
- An annual inspection shall be conducted by an authorized employee of the contractor to evaluate the implementation and efficacy of lockout/tagout procedures.
- Locks and/or tags must not be removed by anyone other than the employee applying them except under special, approved permit
- Testing or positioning of machines or equipment will be performed only under special procedures per OSHA 29 CFR 1910.147(f)

2. **Procedures** – All contractors will have a general lockout/tagout program prior to performing work. A written form will be required for lockout/tagout procedures for machinery or equipment that will require more than one energy isolating device to be locked and/or tagged.

3. **Training** – All contractor employees will be trained by the contractor (or another acceptable training source) concerning the lockout/tagout procedures prior to beginning work at the site. A record will be kept of all employees trained and verification (by exam or other written means) that they understood the training they received. The training will include the disciplinary actions that will be taken if lockout/tagout procedures are not followed.

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4. **Inspections** – Audits and inspections of the lockout/tagout procedures will be conducted routinely by contractor's foreman, supervisor, or on site safety personnel. A record will be kept of the inspections and the follow up action taken.

Confined Space Entry Program

- Confined spaces present serious potential hazards to employees entering them including oxygen deficiency, toxic materials, flammable materials, and hazardous energy. Each contractor must establish and maintain an effective confined space entry procedure that complies with ISHA standard 29 CFR 1926.21(b)(6) and 1910.146 when applicable.
- For those contractors performing work in areas with confined spaces, a copy of your confined space entry procedures must be submitted to the Project Manager/Site Supervisor prior to beginning work at the site.
- Contractors must provide all equipment required for safe entry, including special rescue equipment.

Fall Protection

- Reasonable fall protection shall be provided to protect personnel from accidental falls associated with floors, platforms, scaffolds, guardrails, physical barriers, and elevated work locations. Standard guardrails must be provided for work locations 6 feet or more above the adjacent level per OSHA standard 29 CFR 1926.500 and fall protection generally provided over 10 feet.
- All employees working at unguarded locations above 6 feet in construction (10 feet in scaffolds) must be protected by properly wearing approved fall protection equipment including safety harnesses and lifelines as specified by supervision. All employees required to wear approved fall protection devices must be properly trained concerning the need for and purpose of the protection. Also they must be instructed in the proper use of the equipment and shall demonstrate that they know, understand, and can use the fall protection devices properly.
- Supervisors shall ensure the use of fall protection devices as required.

Scaffolds

- Contractors shall comply with OSHA Standards 29 CFR 1926, Subpart L on scaffolding and 29 CFR 1910.28

Safety Programs and Procedures

- Access to scaffolds shall be limited to authorized personnel only, especially after working hours

Blasting and Explosives

- Before blasting operations inform the Project Manager/Site Supervisor
- Store a maximum of a one day supply of explosives on a construction site

2.4 Safety Policies

Facilities, Equipment, Tools, and Vehicles

All workplace facilities, equipment, tools, and vehicles must be properly designed and maintained from a safety standpoint. All workplace facilities, equipment, and activities must comply with the applicable governmental regulations including OSHA and EPA. Proper stairs, ladders, platforms, and guardrails must be provided to ensure employee safety and compliance with OSHA regulations. All equipment, tools, and vehicles used must be used in accordance with manufacturers operating instructions.

Education And Training

All managers, supervisors and employees must be properly trained to recognize, evaluate, and control workplace safety and health hazards. No employee is allowed to perform a job until he or she has been properly trained to perform the job safely. Specific training must be provided concerning the safety rules and procedures pertaining to the jobs being performed. Safety and health training is to be conducted initially upon employment and at least annually thereafter. Frequent refresher training such as tool box safety talks should also be part of the training program.

Inspections

Contractors should perform frequent and regular safety inspections, normally at least weekly.

Emergency Procedures

All employees must know, understand, and be able to follow all workplace emergency procedures pertaining to their assignment.

Accidents

All accidents, incidents, injuries, and illnesses must be reported to supervision immediately so they can be properly investigated and employees properly protected. Injuries and

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illnesses requiring an accident report will be reported to Human Resources.

Manual Materials Handling

Manual materials handling and other physical activities must be performed only by those employees physically able to do so.

Enforcement

Woodmeister Master Builders expects and authorizes the designated Site Supervisor / Lead Person on the job site to administer immediate disciplinary action for unacceptable behavior or safety violations proportionate to the severity of the violation and to contact the employee's manager to document the incident and determine what, if any, next steps are required. We expect our supervisors to lead safe and efficient projects and to exercise good judgement in holding team members accountable for safe behaviors.

The Site Supervisor is also responsible for subcontractors in that they are accountable and abide by Woodmeister's safety protocols and job site rules.

2.5 General Safety Procedures

The following General Safety Procedures apply to the entire workplace and should be followed by managers, supervisors, and employees.

OSHA General Duty Clause

Hazardous conditions or practices not covered in an OSHA standard may be covered under Section 5(a)(1) of the Occupational Safety and Health Act of 1970 which states: "Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

General Inspections and Training

- Contractors should designate a competent site safety coordinator for each job site. The contractor's site safety coordinator should be identified to the Project Manager/Site Supervisor in the event that safety concerns regarding the worksite arise.
- Contractors should initiate and maintain an inspection program to provide for

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frequent and regular self-inspections of the job site, materials and equipment.

- Contractors should instruct each employee in the recognition and avoidance of unsafe conditions and in the regulations applicable to his or her work environment and to control or eliminate any hazards or other exposure to illnesses or injury.
- The use of any machinery, tools material, or equipment which is not in the compliance with any applicable requirements of OSHA standards is prohibited.

Medical Services and First Aid

- A person trained to render First Aid is to be available at the worksite.
- Where their eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

Hand and Power Tools

- Electric power operated tools shall either be approved double insulated, or be properly grounded, and used with ground fault circuit interrupters when used in damp or wet areas.
- Only authorized and properly trained employees shall use power tools.
- Powder actuated tools require certified operators and warning signs posted in all area affected by the noise of the nail gun.
- Wrenches shall not be used when the jaws are sprung to the point that slippage occurs.
- Impact tools shall be kept free of mushroomed heads.
- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

Personal Protective Equipment (PPE)

- Appropriate Personal Protective Equipment shall be worn in all operations where there is an exposure to hazardous conditions or where the need is indicated for using such equipment to reduce the hazard to the employees.
- Employees working over or near water, where the danger of drowning exists, shall be provided with U.S. Coast Guard approved life jackets or buoyant work vests.

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Eye and Face Protection

- Eye and face protection shall be provided when machines or operations present potential eye or face injury.
- Eye and face protective equipment shall meet the requirements of ANSI Z87.1-1991, "Practice for Occupational and Educational Eye and Face Protection."
- Employees involved in welding operations shall be furnished with filter lenses or plates of at least the proper shade number.
- Employees exposed to laser beams shall be furnished suitable laser safety goggles that will protect for the specific wavelength of the laser and be optical density adequate for laser involved.

Head Protection

Head protective equipment (hard hats/helmets) shall be worn in areas where there is a possible danger of head injuries from impact, flying or falling objects, or electrical shock and burns. Hard hats/helmets shall meet the performance requirements of ANSI Z89.1, "Standard for Industrial Protective Helmets."

Hearing Protection

- Feasible engineering or administrative controls shall be utilized to protect employees against sound levels in excess of those shown in Table D-2, OSHA Standard 1926.52.
- When engineering or administrative controls fail to reduce sound levels within the limits of Table D-2, hearing protective devices shall be provided and used.
- Hearing protection is required at constant noise above 85 decibels or impact noise above 140 decibels.
- In all cases where the sound levels exceed the values shown in safety and health regulations, a hearing conservation program shall be administered.
- Plain cotton earplugs are not acceptable for hearing protection.

Respiratory Protection

- When engineering or administrative controls are not effective in controlling toxic substances, appropriate respiratory protective equipment will be provided and shall be used.

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- Respiratory protective devices approved by the Mine Safety and Health Administration/National Institute for Occupational Safety and Health for the specific contaminant to which the employee is exposed shall be used.
- Respiratory protective devices provided by supervisor shall be appropriate for the hazardous material involved and the extent and nature of the work requirements and conditions.
- Employees required to use respiratory protective devices should be thoroughly trained in their use.
- Contractors should have a written respirator protection program that includes respirator training, fit testing, and medical qualification documentation.

Gases, Vapors, Fumes, Dusts, and Mists

- Exposure to toxic gases, vapors, fumes, dusts, and mists at a concentration above those specified in the most recent "Threshold Limit Values of Airborne Contaminants" of the ACGIH, shall be avoided.
- Administrative or engineering controls must be implemented whenever feasible to comply with TLV's.
- When engineering and administrative controls are not feasible to achieve full compliance, protective equipment or other protective measures shall be used to keep the exposure of employees to air contaminants within the limits prescribed. Any equipment and technical measure used for this purpose must first be approved for each particular use by an industrial hygienist or other technically qualified person.

Electrical

- All electrical work shall be in compliance with the most recent National Electric Code of the NEC according to the construction documents.
- Only qualified persons are permitted to work on or near energized conductors or parts and then only under special procedures that ensure proper employee protection.
- Unqualified persons shall not be allowed to work within 10 feet of energized overhead power lines
- Equipment must not be operated closer than 10 feet of overhead energized power lines unless specific procedures are followed by qualified persons using appropriate protection equipment.

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- Extension cords used with portable electric tools shall be the 3-wire type, shall be protected from damage. Splices shall have soldered wire connections with insulation equal to the original. Worn or frayed cores shall not be used.
- Bulbs on temporary lights shall be equipped with guards or deeply recessed in the reflector. Temporary lights shall not be suspended by their electric cords unless designed for suspension.
- Receptacles for attachment plugs shall be of the approved concealed contact type. Where different voltages, frequencies, or types of current are supplied receptacles shall be of such designs that attachment plugs are not interchangeable.
- Each disconnecting means of motors and appliances and each service feeder or branch circuit at the point where it originates shall be legible marked to indicate its purpose, unless located and arranged so the purpose is evident.
- Cable passing through work areas shall be covered or elevated to protect it from damage, which would create a hazard to employees.
- Boxes for disconnecting means shall be securely and rigidly fastened to the surface upon which they are mounted and fitted with covers.
- All extension cords and cord & plug connected equipment shall be protected by an assigned equipment grounding conductor program
- No employer shall permit an employee to work in proximity to any part of an electric power circuit that the may contact, unless the employee is protected against electric shock by de-energizing the circuit and grounding it or by guarding it by effective insulation or other means.
- In work areas where the exact location of underground electric power lines is unknown, workers using jackhammers, bars, or other hand tools, which may contact an energized line, shall be provided with insulated protective gloves.

Fire Protection

- Contractors must obtain Hot Work permits before performing welding, soldering, or torch work.
- Contractors must contact the Fire Safety Division before performing work on fire suppression and fire alarm systems.
- Fire fighting equipment shall be conspicuously located, readily accessible at all times, shall be periodically inspected, and shall be maintained in operating condition.

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- Extinguishers are to be placed at least every 75 feet. Extinguishers are to be provided by contractor.
- Each employee must know the alarm system at the worksite so they, and the local fire department, can be alerted during an emergency.

Flammable & Combustible Liquids

- Flammable and combustible liquids shall only be stored in approved containers and in appropriate quantities for the job site use.
- Conspicuous and legible signs prohibiting smoking shall be posted in service and refueling areas.
- Flammable liquids shall be dispensed through grounded and bonded containers.

Welding, Cutting and Heating

- All employees shall be instructed in the safe use of welding equipment prior to using this equipment.
- Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention shall be taken where welding or other "hot work" is being done. No welding, cutting, or heating shall be done where the application of flammable paints, or the presence of any other flammable compounds, or heavy dust concentration creates a fire hazard.
- Arc welding and cutting operations shall be shielded by noncombustible or flameproof shields to protect persons from direct arc rays. Visual barriers screens are required for arc-welding operations.
- When electrode holders are to be left unattended, electrodes shall be removed and the holder shall be placed or protected so that it cannot make electrical contact with employees or conducting objects.
- All arc welding and cutting cables shall be completely insulated and be capable of handling the maximum current requirements for the job. There shall be no repairs or splices within 10 feet of the electrode holder except where splices are insulated equal to the insulation of the cable. Defective cables shall be repaired or replaced.
- Fuel gas and oxygen hoses shall be easily distinguishable and shall not be interchangeable. Hoses shall be inspected at the beginning of each shift and

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shall be repaired or replaced if defective.

- General mechanical or local exhaust ventilation or air line respirators shall be provided, as required, when welding, cutting, or heating:
- Zinc, lead, cadmium, mercury, or beryllium-bearing materials in enclosed spaces;
- Stainless steel with inert-gas equipment;
- In confined spaces;
- Where an unusual condition can cause an unsafe accumulation of contaminants;
- Proper eye protective equipment shall be provided when appropriate.

Liquefied Petroleum Gas (LP)

- Storage of LP gas within buildings is prohibited.
- Each system shall have containers, valves, connectors, manifold valve assemblies, and regulators if an approved type.
- All cylinders shall meet DOT specifications.
- Every container and vaporizer shall be provided with one or more approved safety relief valves or devices.
- Containers shall be placed upright on firm foundations or otherwise firmly secured.
- Portable heaters shall be equipped with an approved automatic device to shut off the flow of gas in the event of flame failure.
- Storage locations shall have at least one approved portable fire extinguisher, rated not less than 20-B:C.

Housekeeping

- Form and scrap lumber with protruding nails and all other debris shall be kept clear from all work areas.
- Combustible scrap and debris shall be removed at regular intervals.
- Containers shall be provided for collection and separation of all refuse. Covers shall be provided on containers used for flammable or harmful substances.
- Wastes shall be disposed of at frequent intervals.
- Lay down areas shall be orderly and free from tripping hazards.

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Storage

- All materials stored in tiers shall be secured to prevent sliding, falling, or collapse.
- Aisles and passageways shall be kept clear and in good repair.
- Storage of materials shall not obstruct exits.
- Materials shall be stored with due regard to their fire characteristics.

Ladders

- The use of ladders with broken or missing rungs or steps broken or split side rails or with other faulty or defective construction is prohibited. When ladders with such defects are discovered, they shall immediately be withdrawn from service.
- Portable ladders shall be placed on a substantial base at a 4:1 Pitch, have clear access at top and bottom, extend a minimum of 36 inches above the landing, or where not practical, be provided with grab rails and be secured against movement while in use.
- Portable metal ladders shall not be used for electrical work or where they may contact electrical conductors.
- Job-made ladders shall be constructed for their intended use. Cleats shall be inset into side rails ½", or filler blocks used. Cleats shall be uniformly spaced, 12 inches, top-to-top.
- Except where either permanent or temporary stairways for suitable ramps or runways are provided, ladders shall be used to give safe access to all elevations.
- All users of ladders shall be properly trained and documented by the Contractor.

Flag Persons

- When signs, signals and barricades do not provide necessary protection on or adjacent to a highway or street, flag persons or other appropriate traffic controls shall be provided.
- Flag persons shall be provided with and shall wear a red or orange warning garment while flagging. Warning garment worn at night shall be of reflective material.

Motor Vehicles and Mechanized Equipment

- Observe posted speed limits, give pedestrians the right of way, and yield to emergency vehicles.
- All vehicles in use shall be checked at the beginning of each shift to assure

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that all parts, equipment, and accessories that affect safe operation are in proper operating condition and free from defects. All defects will be corrected before the vehicle is placed in service.

- No person shall use any motor vehicle earth moving or compacting equipment having an obstructed view to the rear unless:
- The vehicle has a reverse signal alarm distinguishable from the surrounding noise level or;
- The vehicle is backed up only when an observer signals that it is safe to do so.
- Heavy machinery, equipment, or parts thereof which are suspended or held aloft shall be substantially blocked to prevent falling or shifting before employees are permitted to work under or between them.
- Park only in areas approved for contractor use.

Railings

- A standard railing used to protect personnel from falls shall consist of top rail, intermediate rail, toe board, and posts, and have a vertical height of approximately 42 inches from upper surface of top rail to the floor, platform, etc.
- The top rail of a railing shall be smooth-surfaced, with strength to withstand at least 200 pounds. The intermediate rail shall be approximately halfway between the top rail and floor.
- A stair railing shall be of construction similar to a standard railing, but the vertical height shall be not more than 34 inches, nor less than 30 inches from upper surface of top rail to surface of tread in line with face or riser at forward edge of tread.

Scaffolds

- Scaffolds shall be erected on sound, rigid footing, capable of carrying the maximum intended load without settling or displacement.
- Scaffolds and their components shall be capable of supporting, without failure, at least 4 times the maximum intended load.
- Guardrails and toe boards shall be installed on all open sides and ends of platforms more than 10 feet above the ground or floor, except needle beam scaffold and floats. Scaffold 4 feet to 10 feet in height, having a minimum dimension in either direction of less than 45 inches, shall have standard guardrails installed on all open sides and ends of platform.

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- There shall be a screen with maximum ½ " openings between the toe board and the guardrail, where the persons are required to work or pass under the scaffold.
- All planking shall be scaffold grade or equivalent. The maximum permissible span for 1 ¼" x 9" or wider plank of full thickness is 4 feet, with medium loading of 50 p.s.f.
- Scaffolding planking shall be overlapped a minimum of 12 inches or secured from movement.
- Scaffold plank shall extend over their end supports not less than 6 inches or more than 12 inches.
- All scaffolding and accessories shall have any defective parts immediately replaced or repaired.
- An access ladder or equivalent safe access shall be provided.
- Also see the scaffold requirements in Section 2.3, special procedures.

Air Tools

- Pneumatic power tools shall be secured to the hose or ship in a positive manner to prevent accidental disconnection.
- Safety clips or retainers shall be securely installed and maintained on pneumatic impact tools to prevent attachments from being accidentally expelled.
- The manufacturers safe operating pressure for all fittings shall not be exceeded.
- All hoses exceeding ½ inch inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.

Compressed Air

- Compressed air used for cleaning purposes shall not exceed 30 psi
- Compressed air for cleaning will only be used with effective hip guarding and personal protective equipment. This requirement does not apply to concrete form, mill scale, and similar cleaning operations

Compressed Gas Cylinders

- Valve protection caps shall be in place when compressed gas cylinders are transported, moved, or stored.
- Cylinder valves shall be closed when work is finished and when cylinders are empty or moved.

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- Compressed gas cylinders shall be secured in an upright position at all times, except if necessary for short periods of time when cylinders are actually being hoisted or carried.
- Cylinders shall be kept at safe distances or shielded from welding or cutting operation. Cylinders shall be placed where they cannot become part of an electrical circuit.
- Oxygen and fuel gas regulators shall be in proper working order while in use.
- Applicable technical portions of American National Standards Institute Z49.1, Safety in Welding and Cutting, shall be followed.

Hoists and Cranes

- Comply with the manufacturer's specifications and limitations for hoists.
- Rated load capacities, recommended operating speeds, and special hazard warnings or instructions shall be posted on cars and platforms
- Never move suspended loads directly over personnel.

Accident Record Keeping and Reporting Requirements

- Within 8 hours after its occurrence, an accident which is fatal to one or more employees or which results in the hospitalization of three or more employees shall be reported by the employer to the nearest OSHA Area Director.
- All injuries requiring a first report of injury will be reported to Human Resources

Motor Vehicle Operations

CHAPTER 3

Motor Vehicle Operations

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Motor Vehicle Operations

MOTOR VEHICLE SAFETY

3.1 Driver Selection

The selection of employees who will be required to drive full or part-time should be done with care. Drivers of company vehicles can be considered qualified when they meet the following criteria:

- Possess a valid State driver's license of the proper class.
- A review of their traffic record shows that they do not pose an unreasonable risk.

3.2 Driver Training

All company drivers should be trained in safe driving habits through use of the National Safety Council's Defensive Driving Course or equivalent. The course should be given to each driver at least once every three years. The course teaches skills in:

- Defensive driving.
- Split-second decision-making.
- Backing-up rules.
- Safe distances.
- Intersection driving.
- Poor condition driving in dust storms, rain, etc.

3.3 Preventive Maintenance

Establishment of a preventive maintenance program for all company vehicles is essential. Record jackets should be maintained on all vehicles so that a log can be maintained on all planned maintenance, as well as repairs made from noted defects.

3.4 Vehicle Inspection

The operator shall inspect each vehicle or piece of equipment on a daily basis before and after operation. Each operator is responsible for the safe condition of the equipment. Any vehicle

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having steering or brake problems is not to be operated until a mechanic has made repairs. Any other unsafe conditions are to be reported to the operator's supervisor as soon as possible.

3.5 Vehicle Operation

All company vehicles and equipment are to be operated in a safe manner and adhere to all applicable laws. The operator is totally responsible for the safe operation of the equipment. The vehicle operator shall report any accidents or damage to the supervisor.

DRIVER SAFETY PROGRAM

3.6 Introduction

The operation of vehicles is indispensable in conducting company business. The way in which each vehicle is handled will directly affect the loss picture of the entire company. Fleet losses are potentially one of the most costly types of losses that an operation can incur.

The types of exposure that involve the fleet program include: property damage, bodily injury, fatalities, liability suits, and Worker's Compensation cases.

The claims cost that would result from losses incurred can mount to dollars that will adversely affect our efforts to accomplish company objectives. To help prevent vehicle accidents and the type of loss exposures associated with them, the following guidelines have been established:

3.7 Policy

The success and the safety of our employees depend on the mutual cooperation of each employee who has been entrusted with the responsibility of driving a company vehicle or their own vehicle while conducting company business.

In order to reduce vehicle accidents and to limit the company's liability because of driver negligence, the company has adopted a Driver Safety Program.

3.8 Procedure

The procedures set forth in the Driver Safety Program will be the guidelines for management adherence to this policy.

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3.9 Responsibility

The Supervisors have the primary responsibility for the Driver Safety Program. The Safety Coordinator will appoint a responsible representative to report all driver information requested by our Insurance broker.

3.10 Monitoring

The Safety Coordinator is to be responsible for the records of the Driver Safety Program. Duties will include, but not be limited to:

- Be responsible for monitoring the driving record of those persons who operate the company vehicles or their own "personal" vehicle while on company business.
- Monitor the Driver's Safety Program and report to management any suggestions for improvement or needed changes.
- Monitor the maintenance policy of fleet vehicles so that they are kept in safe condition.
- Review each vehicle accident report or infraction with management.
- Monitor renewals of insurance records.

3.11 Drivers

Drivers of vehicles that are owned, rented, or leased by the company will be required to follow defensive driving techniques and practices. The basic defensive driving practice is to plan ahead and does everything that one can reasonably do to prevent an accident. This is to include the use of seat belts. The following guidelines will also be followed:

- Drivers must possess a valid driver's license in order to operate any company vehicle or their own personal vehicle on company business. Job descriptions will state the requirements for a driver's license to include the type of license.
- The driver should be physically and mentally capable of driving the vehicle he/she is assigned to drive, whether the vehicle is a car, van, or truck.

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3.12 Pre-Operation of Vehicles

Prior to the assignment of any vehicle to any employee or prior to allowing an employee to drive THEIR OWN VEHICLE on company business, the following minimum standards will be implemented and records maintained to insure that the driver is qualified to drive the vehicle and minimize the risk of liability to the company:

3.13 Initial Assignment

1. Verification and recording of date and type of driver's license held, and renewal date noted;
2. A review of the driver's state Motor Vehicle Record for the most recent three-year period to include the following:
 - Review of the accident report history showing the dates and types of accident regardless who was at fault;
 - Review of the traffic violations for the last three years;
 - Unacceptable limits are 6 points accumulated or any major conviction during the past 36 months prior to employment. (See Point System below)
 - Confirmation of personal insurance for those driving their personal vehicle on company business.
 - Physical examinations when required by the state for the driving of specified vehicles or by funding and licensing contract.

3.14 Criteria for Company Driver

- The driver must not have any major convictions and shall be immediately suspended from driving any company vehicle or their personal vehicle on company business if a major conviction occurs.
- Driving a company vehicle while under the influence of drugs or alcohol will subject the employee to disciplinary action up to and including dismissal.

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3.15 Major Convictions

Major convictions include but are not limited to:

- Driving while intoxicated or under the influence of alcohol or drugs;
- Failure to stop and report an accident;
- Homicide, manslaughter or assault arising out of the operation of a motor vehicle;
- Driving during a period when license is suspended or revoked;
- Reckless driving;
- Possession of an open container of alcoholic beverage; speed contest, drag or highway racing; or
- Attempting to elude a Peace Officer.

3.16 Minor Convictions

Any moving traffic violation other than a major conviction except the following:

- Motor vehicle equipment, load or size requirements;
- Improper display or failure to display license plates provided such plates exist;
Failure to have in possession a valid driver's license.

3.17 Annual Review

A review of each driver's file and record will be made annually and will include all of the criteria above as appropriate for each employee.

3.18 Preventable Accident

A preventable accident is defined by the National Safety Council as "Any vehicle accident involving a vehicle which results in property damage and/or personal injury regardless of who was injured, what property was damaged, to what extent, or where it occurred in which the driver in question failed to exercise reasonable precaution to prevent the accident."

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3.19 Special Note

Police shall be called to investigate all company vehicle accidents, and it is incumbent upon the supervisor to insure that all facts are obtained with respect to the driver. Under no circumstances should any employee make any statement relative to liability or draw any conclusions as to the facts asserted at the scene.

The occurrence of a vehicle accident may or may not be the fault of the employee. Therefore, it is imperative that the same investigative procedure which was outlined for the industrial accidents be used to determine the cause of accident and corrective action taken by the employee's immediate supervisor.

Basic First Aid (Hot & Cold Weather Conditions)

CHAPTER 4

**Basic First Aid
(Hot & Cold Weather Conditions)**

Environmental Health & Safety

Basic First Aid (Hot & Cold Weather Conditions)

4.1 Safety Problems

Certain safety problems are common to hot environments. Heat tends to promote accidents due to the slipperiness of sweaty palms, dizziness, or the fogging of safety glasses. Wherever there exists molten metal hot surfaces, steam, etc., the possibility of burns from accidental contact also exists.

Aside from these obvious dangers, the frequency of accidents, in general appears to be higher in hot environments than in more moderate environmental conditions. One reason is that working in a hot environment lowers the mental alertness and physical performance of an individual. Increased body temperature and physical discomfort promote irritability, anger, and other emotional states that sometimes cause workers to overlook safety procedures or to divert attention from hazardous tasks.

4.2 Health Problems

Excessive exposure to a hot work environment can bring about a variety of heat-induced disorders.

4.2a *Heat Stroke*

Heat stroke is the most serious of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached.

A heat stroke victim's skin is hot, usually dry, red or spotted. Body temperature is usually 105oF or higher, and the victim is mentally confused, delirious, perhaps in convulsions, or unconscious. Unless the victim receives quick and appropriate treatment, death can occur.

Any person with signs or symptoms of heat stroke requires immediate hospitalization. However, first aid should be immediately administered. This includes removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body to increase cooling. Further treatment at a medical facility should be directed to the continuation of the cooling process and the monitoring of complications, which often accompany the heat stroke. Early recognition and treatment of heat stroke are the only means of preventing permanent brain damage or death.

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4.2b *Heat Exhaustion*

Heat exhaustion includes several clinical disorders having symptoms, which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated.

In most cases, treatment involves having the victim rest in a cool place and drink plenty of liquids. Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects.

4.2c *Persons with Heart Problems*

CAUTION - Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.

4.2d *Heat Cramps*

Heat cramps are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss. The drinking of large quantities of water tends to dilute the body's fluids, while the body continues to lose salt. Shortly thereafter, the low salt level in the muscles causes painful cramps. The affected muscles may be part of the arms, legs, or abdomen, but tired muscles (those used in performing the work) are usually the ones most susceptible to cramps. Cramps may occur during or after work hours and may be relieved by taking salted liquids by mouth.

CAUTION - Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.

4.2e *Fainting*

A worker who is not accustomed to hot environments and who stands erect and immobile in the heat may faint. With enlarged blood vessels in the skin and in the lower part of the body due to the body's attempts to control internal temperature, blood may pool there rather than return to the heart to be pumped to the brain. Upon lying down, the worker should

Basic First Aid (Hot & Cold Weather Conditions)

soon recover. By moving around, and thereby preventing blood from pooling, the patient can prevent further fainting.

4.2f *Heat Rash*

Heat rash, also known as prickly heat, is likely to occur in hot, humid environments where sweat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time. The sweat ducts become plugged, and a skin rash soon appears. When the rash is extensive or when it is complicated by infection, prickly heat can be very uncomfortable and may reduce a worker's performance. The worker can prevent this condition by resting in a cool place part of each day and by regularly bathing and drying the skin.

4.2g *Preparing for the Heat*

One of the best ways to reduce heat stress on workers is to minimize heat in the workplace. However, there are some work environments where heat production is difficult to control, such as when furnaces or sources of steam or water are present in the work area or when the workplace itself is outdoors and exposed to varying warm weather conditions.

Humans are, to a large extent, capable of adjusting to the heat. This adjustment to heat, under normal circumstances, usually takes about 5 to 7 days, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable.

On the first day of work in a hot environment, the body temperature, pulse rate, and general discomfort will be higher. With each succeeding daily exposure, all of these responses will gradually decrease, while the sweat rate will increase. When the body becomes acclimated to the heat, the worker will find it possible to perform work with less strain and distress.

Gradual exposure to heat gives the body time to become accustomed to higher environmental temperatures. Heat disorders in general are more likely to occur among workers who have not been given time to adjust to working in the heat or among workers who have been away from hot environments and who have gotten accustomed to lower temperatures. Hot weather conditions of the summer are likely to affect the worker who is not acclimatized to heat. Likewise, workers who return to work after a leisurely vacation or extended illness may be affected by the heat in the work environment. Whenever such circumstances occur, the worker should be gradually reacclimatized to the hot environment.

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4.2h *Drinking Water*

In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced. Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Instead, the worker should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in the body. There is no optimum temperature of drinking water, but most people tend not to drink warm or very cold fluids as readily as they will cool ones. Whatever the temperature of the water, it must be palatable and readily available to the worker. Individual drinking cups should be provided--never use a common drinking cup.

Heat acclimatized workers lose much less salt in their sweat than do workers who are not adjusted to the heat. The average American diet contains sufficient salt for acclimatized workers even when sweat production is high. If, for some reason, salt replacement is required, the best way to compensate for the loss is to add a little extra salt to the food. Salt tablets should not be used.

CAUTION - Persons with heart problems or those on a low sodium diet who work in hot environments should consult a physician about what to do under these conditions.

4.2i *Awareness is Important*

The key to preventing excessive heat stress is educating the employer and worker on the hazards of working in heat and the benefits of implementing proper controls and work practices. The employer should establish a program designed to acclimatize workers who must be exposed to hot environments and provide necessary work-rest cycles and water to minimize heat stress.

4.3 **Protecting Workers in Cold Environments**

To help protect employers and employees need to avoid prolonged exposure to frigid temperatures.

Exposure to cold weather can be more than uncomfortable; it can be dangerous. More than 700 people die of hypothermia each year in the United States. Employers and workers need to know how to defend against hazards of working in extremely cold temperatures.

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Wearing the right clothing is the most important step a person can take to fight the cold's harmful effects, and ultimately avoid cold-related injuries. Employers can take added steps to help protect their workers by having employees come out of the cold for periods of time, providing additional heat sources, and setting up systems to check more frequently on people working in the cold.

During cold weather about 60 percent of a person's body fuel is used to heat the body. When exposed to frigid temperatures, particularly for extended periods of time, a person will tire easily, and exposed skin will cool rapidly. This is prime breeding ground for the dangerous effects of the cold -- hypothermia and frostbite. Combine cold temperatures with water, including actual immersion, and trench foot becomes another potential serious ailment.

As the weather becomes "frightful" during winter months, workers who must brave the outdoor conditions face the occupational hazard of exposure to the cold. Prolonged exposure to freezing temperatures can result in health problems as serious as trench foot, frostbite, and hypothermia. Workers in such industries as construction, commercial fishing and agriculture need to be especially mindful of the weather, its effects on the body, proper prevention techniques, and treatment of cold-related disorders.

4.3a *The Cold Environment*

An individual gains body heat from food and muscular activity and loses it through convection, conduction, radiation and sweating to maintain a constant body temperature. When body temperature drops even a few degrees below its normal temperature of 98.6°F (37°C), the blood vessels constrict, decreasing peripheral blood flow to reduce heat loss from the surface of the skin. Shivering generates heat by increasing the body's metabolic rate.

The four environmental conditions that cause cold-related stress are low temperatures, high/cool winds, dampness and cold water. Wind chill, a combination of temperature and velocity, is a crucial factor to evaluate when working outside. For example, when the actual air temperature of the wind is 40°F (4°C) and its velocity is 35 mph, the exposed skin receives conditions equivalent to the still-air temperature being 11°F (-11°C)! A dangerous situation of rapid heat loss may arise for any individual exposed to high winds and cold temperatures.

4.3b *Major Risk Factors for Cold-Related Stresses*

- Wearing inadequate or wet clothing increases the effects of cold on the body.
- Taking certain drugs or medications such as alcohol, nicotine, caffeine, and

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medication that inhibits the body's response to the cold or impairs judgment.

- Having a cold or certain diseases, such as diabetes, heart, vascular, and thyroid problems, may make a person more susceptible to the winter elements.
- Being a male increases a person's risk to cold-related stresses. Sad, but true, men experience far greater death rates due to cold exposure than women, perhaps due to inherent risk-taking activities, body-fat composition or other physiological differences.
- Becoming exhausted or immobilized, especially due to injury or entrapment, may speed up the effects of cold weather.
- Aging - the elderly are more vulnerable to the effects of harsh winter weather.

4.3c *Harmful Effects of Cold*

TRENCH FOOT

Trench Foot is caused by long, continuous exposure to a wet, cold environment, or actual immersion in water. Commercial fisherman, who experience these types of cold, wet environments daily, need to be especially cautious.

Symptoms:

Symptoms include a tingling and/or itching sensation, burning, pain, and swelling, sometimes forming blisters in more extreme cases.

Treatment:

Move individuals with trench foot to a warm, dry area, where the affected tissue can be treated with careful washing and drying, re-warming and slight elevation. Seek medical assistance as soon as possible.

FROSTBITE

Frostbite occurs when the skin tissue actually freezes, causing ice crystals to form between cells and draw water from them, which leads to cellular dehydration. Although this typically occurs at temperatures below 30°F (-1°C), wind chill effects can cause frostbite at above-freezing temperatures.

Symptoms:

Initial effects of frostbite include uncomfortable sensations of coldness; tingling, stinging or aching feeling of the exposed area followed by numbness. Ears, fingers, toes, cheeks, and noses are primarily affected. Frostbitten areas appear white and cold to the touch. The

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appearance of frostbite varies depending on whether re-warming has occurred. Deeper frostbite involves freezing of deeper tissues (muscles, tendons, etc.) causing exposed areas to become numb, painless, and hard to the touch.

Treatment:

If you suspect frostbite, you should seek medical assistance immediately. Any existing hypothermia should be treated first (See Hypothermia below). Frostbitten parts should be covered with dry, sterile gauze or soft, clean cloth bandages. Do not massage frostbitten tissue because this sometimes causes greater injury. Severe cases may require hospitalization and even amputation of affected tissue. Take measures to prevent further cold injury. If formal medical treatment will be delayed, consult with a licensed health care professional for training on re-warming techniques.

GENERAL HYPOTHERMIA

General Hypothermia occurs when body temperature falls to a level where normal muscular and cerebral functions are impaired. While hypothermia is generally associated with freezing temperatures, it may occur in any climate where a person's body temperature falls below normal. For instance, hypothermia is common among the elderly who live in cold houses.

Symptoms:

The first symptoms of hypothermia, shivering, an inability to do complex motor functions, lethargy, and mild confusion, occur as the core body temperature decreases to around 95°F (35°C).

As body temperature continues to fall, hypothermia becomes more severe. The individual falls into a state of dazed consciousness, failing to complete even simple motor functions. The victim's speech becomes slurred and his or her behavior may become irrational.

The most severe state of hypothermia occurs when body temperature falls below 90°F (32°C). As a result, the body moves into a state of hibernation, slowing the heart rate, blood flow, and breathing. Unconsciousness and full heart failure can occur in the severely hypothermic state.

Treatment:

Treatment of hypothermia involves conserving the victim's remaining body heat and providing additional heat sources. Specific measures will vary depending upon the severity and setting (field or hospital). Handle hypothermic people very carefully because of the increased irritability of the cold heart. Seek medical assistance for persons suspected of being moderately or severely hypothermic.

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If the person is unresponsive and not shivering, assume he or she is suffering from severe hypothermia. Reduction of heat loss can be accomplished by various means: obtaining shelter, removal of wet clothing, adding layers of dry clothing, blankets, or using a pre-warmed sleeping bag.

For mildly hypothermic cases or those more severe cases where medical treatment will be significantly delayed, external re-warming techniques may be applied. This includes body-to-body contact (e.g., placing the person in a pre-warmed sleeping bag with a person of normal body temperature), chemical heat packs, or insulated hot water bottles. Good areas to place these packs are the armpits, neck, chest, and groin. It is best to have the person lying down when applying external re-warming. You also may give mildly hypothermic people warm fluids orally, but avoid beverages containing alcohol or caffeine.

4.3d *Preventing Cold-Related Disorders*

PERSONAL PROTECTIVE CLOTHING

Personal Protective Clothing is perhaps the most important step in fighting the elements is providing adequate layers of insulation from them. Wear at least three layers of clothing:

- An outer layer to break the wind and allow some ventilation (like Gore-Tex® or nylon);
- A middle layer of wool or synthetic fabric (Qualofil or Pile) to absorb sweat and retain insulation in a damp environment. Down is a useful lightweight insulator; however, it is ineffective once it becomes wet.
- An inner layer of cotton or synthetic weave to allow ventilation.

Pay special attention to protecting feet, hands, face and head. Up to 40 percent of body heat can be lost when the head is exposed. Footgear should be insulated to protect against cold and dampness. Keep a change of clothing available in case work garments become wet.

ENGINEERING CONTROLS

Engineering Controls in the workplace through a variety of practices help reduce the risk of cold-related injuries.

- Use an on-site source of heat, such as air jets, radiant heaters, or contact warm plates.
- Shield work areas from drafty or windy conditions.
- Provide a heated shelter for employees who experience prolonged exposure to equivalent wind-chill temperatures of 20°F (-6°C) or less.

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- Use thermal insulating material on equipment handles when temperatures drop below 30°F (-1°C).

SAFE WORK PRACTICES

Safe Work Practices such as changes in work schedules and practices, are necessary to combat the effects of exceedingly cold weather.

- Allow a period of adjustment to the cold before embarking on a full work schedule.
- Always permit employees to set their own pace and take extra work breaks when needed.
- Reduce, as much as possible, the number of activities performed outdoors. When employees must brave the cold, select the warmest hours of the day and minimize activities that reduce circulation.
- Ensure that employees remain hydrated.
- Establish a buddy system for working outdoors.
- Educate employees to the symptoms of cold-related stresses --heavy shivering, uncomfortable coldness, severe fatigue, drowsiness, or euphoria.

The quiet symptoms of potentially deadly cold-related ailments often go undetected until the victim's health is endangered. Knowing the facts on cold exposure and following a few simple guidelines can ensure that this season is a safe and healthy one.

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Field Emergency Information

CHAPTER 5

Field Emergency Information

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Field Emergency Information

5.1 Purpose

The Field Emergency Plan pertains to Woodmeister Master Builders job sites, its employees, visitors and contractor personnel.

The purpose of this Plan is to ensure the safe and orderly evacuation of the facility during emergency situations such as fire, chemical spills, natural disasters and bomb threats.

All employees at the job site should be familiar with the provisions of this Plan and be knowledgeable about the proper steps to take in the event of an emergency.

5.2 Emergency Overview Plan

For every site Woodmeister Master Builders must provide a plan of the site, accessible and visible for every employee, which contains the location of the Safety Corner, fire extinguishers, first aid equipment, eye wash stations, hygiene facilities and the designated area for injured people, as same as the emergency routes. The Site Supervisor/Lead Person is responsible to introduce this plan before beginning of construction.

5.3 Training

The plan shall be reviewed with all employees:

- When plan is developed.
- Whenever the employee's responsibilities or designated actions under the plan change, and
- Whenever the plan is changed.

5.4 Emergency Personnel

An Emergency Response Team must be organized to respond to each type of emergency. Team members and their duties are identified below:

Communication Chain

Site Supervisor/Lead Person – is responsible for developing and implementing the Emergency Plan. Implementation includes training of personnel and conducting drills. He also has to introduce the Plan to the subcontracting companies and their employees. During

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an emergency, the Site Supervisor/Lead Person will oversee all operations and make all critical decisions regarding employee safety.

The Site Supervisor/Lead Person is the primary person, who knows who is missing, still in the building/job site, or injured and reports that information to the Fire Dept./ Police Dept./ Rescue Responders. He/She is also responsible to make sure every visitor is out of the building.

When Woodmeister works for another company, the Woodmeister job leader will act as a Team Leader and will report to the other company's Site Supervisor/Lead Person.

Site Supervisor / Lead Person

1. The Site Supervisor / Lead Person are responsible for ensuring that all personnel are aware of the emergency and are safely evacuated from the site as necessary. This includes checking restrooms and all other areas to ensure every employee and visitor has left the building.

They also make arrangements to assistance those who may have difficulty in exiting the building. They have to be determined for every site by the respective Site Supervisor/Lead Person.

2. Every Site Supervisor / Lead Person is responsible for maintaining a list of employees/ subs currently working on the job site. The Site Supervisor / Lead Person will do a headcount of their group of employees at the Evacuation Assembly Site.

Everybody - Will assist disabled or other individuals needing assistance during evacuation.

NOTE: It is necessary to designate personnel to fulfill the role for each shift. Those designated should be familiar with the facility and its equipment.

NOTE: To minimize damage to equipment and the site, the Site Supervisor / Lead Person should ensure that all critical machines are shut off and all doors and windows are closed.

For the safety of the Firemen and Emergency Responders, shut down every running machine.

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5.5 Evacuation

All employees shall secure their work area and proceed to the nearest exit and leave the building as quickly and safely as possible unless otherwise instructed. Follow the EXIT signs at the site.

Most important: Safe your life!

1. Shut down machinery; turn off any electrical and pneumatic equipment you are using – only if possible! Do not throw down hand or power tools where you or others might trip and fall when exiting the work area.
2. All electrical cords, extension cords, and pneumatic hoses should be stored as to not create a trip hazard for yourself or others.
3. Close all the doors and windows if possible to keep the fire in a bonded area and not feed it with more air.
4. Go to the designated Assembly Site and find your Team Leader.
5. Attendance: Team Leaders will call of your name.
6. Remain in the area and wait for more instructions.
7. The Team Leaders will report the attendance to the Site Supervisor/Lead Person, and he/ she will report to the Fire Dept./ Police Dept./ Rescue Responders.
8. Do not move your car while emergency vehicles are entering or exiting the site. If your vehicle needs to be moved, the Site Supervisor/Lead Person responding personnel will direct you. Do not go home or leave the premises until the Site Supervisor/Lead Person instructs you to do so. He will provide you with in formation about returning to work.

5.6 Assembly

Once outside the building, all personnel should proceed to the designated Assembly Site for attendance. Team Leaders will take the headcount. Attendance is a very critical task as municipal Emergency Personnel responding to the incident will want to determine if anyone is missing and/ or may be in the building. If any employee is missing, do not re-enter the building! Notify Emergency Response Personnel and inform them of the missing employee's name and last known location.

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5.6 Designated Area For Injured People

The designated area for injured people is job site specific and has to be determined by the Site Supervisor/Lead Person if no building evacuation is necessary, or it is the Evacuation Assembly Site if you're instructed to leave the building.

5.8 Reporting Emergencies

All emergencies should be reported immediately. Run down the Contact List until you get contact. Fill out the accident report and give it to the Site Supervisor/Lead Person.

- Site Supervisor Cell # _____
- Project Manager Cell # _____
- HR Manager Cell # _____

5.9 Emergency Contact Information

Job Site Information

- Name / Job Site _____
- Address _____

Emergency Telephone Numbers

- Fire Department 911
- Ambulance 911
- Police Department 911
- HAZMAT Emergency Chemical Spill911
- Poison Control Center1-800-682-9211

Job-specific:

- Gas Company Telephone# _____
- Water Company Telephone# _____
- Electric Company Telephone# _____
- Nearest Police Station Telephone# _____
- Nearest Hospital Telephone# _____

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5.10 Emergency Information

When contacting emergency services speak slowly and calmly. Announce the following:

1. "My name is _____. I work at Woodmeister Master Builders at (insert site address here)_____.
2. We have a (type)_____ emergency.
3. We need (the fire dept., ambulance, police at this location) _____.
4. We (have/ have not) _____ evacuated the building.
5. All employees are accounted for or we cannot locate (number) _____ employees.
6. We do not have any injuries or we have (number) _____ employees injured.
7. Their injuries are: (list injuries)_____.

5.11 Emergency Incident Procedures

Rescue and First Aid Procedures

As a rule, only outside emergency response professionals will be responsible for fire fighting, rescue and emergency first aid. If necessary the Site Supervisor/Lead Person will assign personnel to render technical assistance to emergency responders.

Fire/ Explosion

Employees are to report any fire or emergency that could lead to a fire or explosion to their immediate Supervisor.

Power Failure

In the event of power failure, the employee will notify the Site Supervisor, who then will notify the electrician and the power company of the situation.

If the power failure causes emergency situation, follow the evacuation plan.

5.12 Responsibility of Employees

Although Woodmeister Master Builders offers training in CPR, fire extinguisher and defibrillator the company neither authorizes nor encourages its use in the workplace. Dial 911 and let the experts handle all rescue and medical duties.

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5.13 Responsibilities of Site Supervisor

- Train employees and subcontractors
- Prepare, post and update Emergency Overview Plan
- Prepare, post and update Emergency Phone Numbers
- Maintain visitor list
- Assign alternate Emergency Coordinator

NOTES

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www.woodmeister.com
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