GEMINI ELECTRIC CO. INC.

Safety & Health Program

GEMINI ELECTRIC CO. INC.

SECTION 7 - APPENDICES / FORMS

Gemini Electric Company, Inc. Safety & Health Policy Statement

Gemini Electric Co., Inc. believes there is no job or task that is more important than worker health and safety. Each project represents a potential safety or health threat. Gemini Electric will make every effort to identify and communicate potential risks for each site and provide the necessary protection equipment and safety procedures to complete projects safely and without incident. If we find that a project cannot be competed safely, we will not accept the project.

As Management, we accept our responsibility for safety. It is the policy of Gemini Electric Co., Inc. to provide a healthy and safe place to work for all employees. The personal safety and health of each employee is of primary importance to us. Since we believe all injuries can be prevented, our goal is zero accidents and illnesses. In order to accomplish this goal, we plan to follow company rules and procedures that have been developed as well as all applicable state, federal and local codes and regulations. We expect our employees to do the same. Shortcuts in safety procedures by Management, Foremen and workers will not be tolerated.

Your cooperation is needed. If a worker observes any unprotected job, which may pose a potential threat to their health or safety, he or she must inform management and management must take adequate precautions. The written safety rules contained in our Safety & Health Program are minimum requirements. We cannot cover every conceivable hazard but we believe there is a safe way to do every job. You need to use common sense and ask your supervisor or foreman whenever you are not sure what to do. We expect you to read, know and follow this program. Safety is everyone's responsibility!

"Our futures are only built through our people; we aim to protect them. No job is so important and no order is so urgent that we cannot take time to perform our work safely. We expect each employee to cooperate in making this program a success."

Edward D. Schmidt, Jr.

Edward. D. Schmidt, Jr.
President

ALL EMPLOYEES ARE REQUIRED TO ABIDE BY THE FOLLOWING RULES AND REGULATIONS

1. Employees are expected to comply with all federal, state, local and company safety rules, procedures, instructions and common safety practices.
2. Know what emergency procedures have been established for your job-site. (Location of emergency phone, first aid kit and where to get first aid help, stretcher location, fire extinguisher locations, etc. and know the evacuation plan.
3. If you are not sure how to perform a job safely, ask for help.
4. Maintain and know how to use and utilize all Personal Protection Equipment (PPE) as prescribed for each job, including but not limited to, head protection, eye protection, protective footwear, protective gloves & clothing, dust masks, earplugs, harnesses and lanyards.
5. Use proper body mechanics, lifting with your legs (not your back) and pushing through your heels to reduce the pressure on your knees. If an object is too heavy, get help!
6. Attend and participate in all company safety meetings, including but not limited to morning warm-ups, weekly safety talks and mandatory safety workshops.
7. Immediately report all accidents, injuries, unsafe conditions, acts, tools and equipment to your Supervisor.
8. The sale, possession, use or influence of alcoholic beverages and/or illegal substances will not be tolerated.
9. The possession of firearms and other weapons is prohibited.
10. Headphones, personal cell phones and all Bluetooth devices are prohibited on jobsites and must be kept in your vehicle.
11. Do not engage in any act that is distracting or endangering to fellow workers. Fighting, gambling, stealing and horseplay will not be tolerated.
12. No soliciting, collecting, or accepting of contributions, dues, assessments, etc. will be allowed on company time without authorization.
13. Employees are not permitted to post, deface, or remove notices, signs, or writing on company posting areas or distribute literature of any description without prior authorization.
14. Use of profane, obscene, vile language that is of an abusive, offensive or harassing nature, to or in the presence of, other employees, customers and vendors is not permitted.
15. Do not smoke, eat, or drink in prohibited areas or at prohibited times.
16. Never operate any tool, lift, machine or rotating equipment unless you have been properly instructed on safe work methods, and all guards/safety devices are in place and in proper operating condition.
17. Never remove, displace, deface, damage, or destroy any safety device or safeguard furnished for use on the job, or interfere with the use thereof.
18. Never oil, lubricate or fuel equipment while it is running or in motion.
19. Before servicing, repairing, or adjusting any powered tool or piece of equipment, disconnect it from the power source, lock out the source of power and tag it out. (See Lock-out/Tag-out Procedures)
20. Compressed gas cylinders must have protective caps in place and the cylinder valve closed when not in use. Cylinders must be properly secured to prevent falling.
21. A portable fire extinguisher is required to be close at hand (within 50 feet) and visible whenever flammable gases are to be used.
22. Do not enter an area which has been barricaded.
23. If you must work around power shovels, trucks and dozers, make sure operators can always see you. Barricades are required for cranes.

24. Barricade dangerous areas; guardrails and perimeter cables may be required.
25. Use safe trenching techniques! Trenches over five feet deep must be shored or sloped as required. Keep out of trenches or cuts that have not been properly shored or sloped. Excavated or other material shall not be stored nearer than two feet from the edge of the excavation. Excavation of less than five feet may also require cave-in protection in some instances.
26. Use the "four and one" rule when using a ladder. One foot of base for every four feet of height.
27. Defective ladders must be properly tagged and removed from service.
28. Keep ladder bases free from debris, hoses, wires, materials, etc.
29. Build scaffolds according to the manufacturer's recommendations and MIOSHA Construction Safety Standard Part 12-Scaffolding, making sure they are properly lapped, cleated or otherwise secured to prevent shifting.
30. Use only extension cords of the three-prong type. Use ground fault circuit interrupters at all times when using tools in a wet atmosphere (i.e. outdoors) or with any temporary power supply. Inspect the electrical grounding system daily.
31. Never enter a manhole, well, shaft, tunnel or other confined space which could possibly have an irrespirable atmosphere due to lack of oxygen, or presence of toxic or flammable gas, or has the possibility of engulfment by solid or liquids. (See Confined Space Entry procedures)
32. Gasoline and other flammable items must be stored and transported in approved safety cans.
33. Appropriate work clothes (No shorts or tank tops allowed), gloves and boots are required. No loose clothing, tennis shoes or jewelry should be worn.
34. Do not use a compressor to blow dust or dirt from your clothes, hair or hands.
35. Be aware of asbestos on job sites! Also familiarize yourself with other hazardous chemicals that you may come into contact with by reading the Hazard Communication and Material Safety Data Sheets.
36. Good housekeeping will be practiced at all times. Work and break areas will be kept free of rubbish and debris.

Violations of any of these rules may be cause for immediate disciplinary action up to and including discharge. Each employee is expected to recognize what constitutes appropriate personal conduct and to act with reasonable and proper regard for the welfare and rights of the company, other employees and other site personnel.

Gemini Electric Co., Inc. has a four-step system for discipline. If a worker shows up on a job site without the proper safety equipment, (i.e. hardhat, work boots, eye protection, and dust mask) they will be sent home without pay, and the absence will be recorded as unexcused on the attendance record.

First Violation:	Verbal Warning and notation in personnel file.
Second Violation:	Written Warning added to personnel file.
Third Violation:	Written Warning and one week suspension without pay.
Fourth Violation:	Termination

Any worker who violates any safety rule set forth by Gemini Electric or any owner or contractor for whom we are working, or who violates any local, state or federal safety regulations, which results in injury to oneself or others, employment by Gemini Electric Co. Inc. will be terminated immediately.

Practicing Safety First is a requirement for continued employment at Gemini Electric Co., Inc. This includes any worker who witnesses a violation and fails to report it.

MANAGEMENT'S RESPONSIBILITIES

The single most important component of effective loss control is the leadership and support of management. Believing that putting Safety First is worthwhile and by supporting this safety program and loss prevention measures extremely increases the likelihood of preventing accidents.

Management's outlook on safety is conveyed directly and indirectly to employees, who strive to carry out what management needs. Loss control is built into our business operations in the same manner as other good practices of business. Management has the responsibility for providing a safe place of employment. Management's responsibilities in safety and loss control are to:

1. Plan every job with safety in mind to make sure the task is in compliance with this safety policy and state and federal regulations.
2. Make sure employees are qualified to operate machinery.
3. Require and enforce the use of personal protective equipment and other safety equipment.
4. Notice and correct immediately unsafe actions or conditions.
5. Conduct safety meetings regularly. Persons attending these meetings should be documented on the Safety Meeting Attendance Sheet.
6. Enforce this safety policy and discipline anyone who willfully violates their responsibilities or these safety rules.
7. Complete a Supervisor's Accident Investigation Report on all accidents no matter how minor.
8. Accompany injured workers to the Occupational Health Clinic or Hospital, no matter how minor or severe the injury may be.
9. Incorporate and follow Return to Work procedures.
10. Make periodic checks of work areas for safety related problems.
11. Review and revise safety programs regularly and communicate any changes or the adoption of new practices to all personnel.
12. Keep management informed about safety problems and employees who violate safety rules.
13. Take time to properly orient new employees in safety. Employee must be shown what to do and how to do it safely.
14. Set a good example to the other employees by complying with all safety rules and responsibilities yourself.
15. Have a good attitude about safety.

SAFETY DIRECTOR'S RESPONSIBILITIES

It is the Safety Director's responsibility to ensure that our Safety & Health Program is successful; one person is assigned full responsibility and authority for safety activity and implementing the safety program effectively.

At Gemini Electric Co., Inc. the Office Manager is responsible for all Human Resource activity including assuming the role of the Safety Director.

The Safety Director is continually alert to hazardous conditions and changes in rules & regulations.

The duties and responsibilities of the safety director include, but are not limited to:

1. Formulating, administering, and making necessary changes to accident prevention rules and procedures in the Safety & Health Program.
2. Reporting to management and supervisors any changes to the safety processes.
3. Orientating new personnel on our safety standards and PPE requirements.
4. Scheduling and assisting in training employees in safety.
5. Initiating and conducting activities that will stimulate and maintain the interest of employees on safety.
6. Maintaining accident records and reports in compliance with local ordinances as well as state and federal rules & regulations.
7. Investigating accidents and ensuring corrective action is taken.
8. Working with the safety supervisor for effective communication and implementation with field personnel.
9. Submitting claims information to insurance carrier and maintaining records/postings for recordable injuries in compliance with MIOSHA standards.
10. Maintaining and implementing the Return to Work program.
11. Ordering safety and PPE supplies.
12. Administering disciplinary actions.
13. Recording all OSHA/MIOSHA investigations, abating violations and submitting abatement documentation to the proper authority.
14. Processing payments for fines imposed as a consequence of violations.
15. Closing out claims that have been paid, abated and approved by the proper authority once documentation has been received confirming that the case has been successfully abated.

SUPERVISOR'S RESPONSIBILITIES

The Field Supervisor has an important role for loss control on various job sites and is indispensable to effective safety and accident prevention as the main point of contact between site foremen and management.

This program succeeds or fails according to the interest and efforts that the supervisor puts forth. If the supervisor displays a positive attitude and manner of conduct that supports accident prevention and loss control, they will convince their employees that it is a necessary part of their work and will win their support for it. Supervisors should understand their responsibility for safe working conditions and safe work practices on their various job sites and communicate and delegate these responsibilities to Site Foremen.

The Supervisor's safety and loss control responsibilities include, but are not limited to:

1. Selecting employees who are mentally and physically qualified for the work, which they are to perform.
2. Completing job specific Hazard Assessments and reviewing this information with job foremen who must maintain a copy of the assessment on site. Also submit a copy of the assessment to the Safety Director to be maintained in the job's safety folder.
3. Giving detailed instructions as to job performance and explain hazards and safety precautions in assigning workers to jobs based on the project and the site assessment.
4. Providing workers with safe and properly labeled tools and equipment to perform their jobs.
5. Checking to see that protective equipment, such as eye protection, is used where required.
6. Planning work in a manner that ensures the workers, materials, and equipment are available to perform the job safely.
7. Actively participating in loss control promotional activities.
8. Personally supervising all hazardous work or work that is new and unusual.
9. Regularly inspecting and maintaining physical properties to insure that good housekeeping practices are followed and that mechanical failure does not occur.
10. Personally investigating all accidents and correcting any unsafe practices or conditions to prevent reoccurrence.
11. Constantly observing work procedures in order to detect and correct any unsafe practices and conditions and developing improved methods.
12. Promptly reporting all accidents occurring in their departments to the safety director.
13. Promptly reporting to the safety director any violations of the safety rules & regulations by workers so that disciplinary action can be taken and recorded.
14. Ensuring that the injured workers promptly receive first aid or medical treatment and accompanying the injured worker to the clinic or hospital.

EMPLOYEE'S RESPONSIBILITIES

The Williams-Steiger Occupational safety and Health Act of 1970 requires "that every employer covered under the Act furnish to his employees, employment and a place of employment which are free from recognized hazards that are causing or likely to cause death or serious physical harm to his/her employees." The Act also requires "that employees comply with standards, rules, regulations and orders under the Act which are applicable to their own actions and conduct".

Employee responsibilities for safety include, but are not limited to the following:

1. Follow all safety rules and regulations.
2. Wear appropriate safety equipment as required.
3. Maintain equipment in good conditions with all safety guards in place when in operation.
4. Report all injuries, no matter how minor immediately to a supervisor.
5. Encourage co-workers to work safely.

Accident/Incident Investigation and Reporting Procedures

Employees are required to report all injuries to their supervisors and obtain proper first-aid treatment, regardless of how minor the injury appears to be. Minor injuries can develop into serious infection and illness if proper first aid is not immediately administered. Foremen will complete an initial Accident Report for all accidents/incidents regardless of whether or not first aid is required and immediately submit the report to the Field Supervisor.

The following forms and procedures shall be used:

Accident Report: All accidents/incidents must be recorded on the Gemini Electric Accident/Incident Report form. This report shall be forwarded to the safety director in the Human Resources Department.

First Report of Injury (State Workers' Compensation Report): For all cases requiring medical attention, this report shall be filed in accordance with applicable state laws. The safety director will file appropriate state forms with the Workers' Compensation insurance carrier.

Accident investigation is of prime importance in the accident prevention program. Its chief purpose is to determine the cause of the accident so that recurrences can be prevented. An accident is an indication that some hazard, exposure, or condition needs correction if a future accident is to be prevented.

Accident/Incident investigations shall be conducted as follows:

1. The Supervisor shall investigate all accident/incidents requiring doctor care or first-aid.
2. The investigation shall include a discussion with the employee and other employees who may have been witnesses.
3. The Supervisor shall determine the cause of the accident/incident, take corrective action, and prepare a written report. The written report should avoid general terms and clearly state the specific cause of the accident.
4. The Safety Director and Supervisor shall review accident/incident reports and insure that prompt corrective action has been taken.
5. The Supervisor shall follow up to insure compliance with company policies and to offer such advice and assistance as he can.

EMERGENCY CONTACT LIST

EMERGENCY TELEPHONE NUMBERS:

FIRE DEPARTMENT: _____ TELEPHONE: _____

POLICE DEPARTMENT: _____ TELEPHONE: _____

EMS (AMBULANCE): _____ TELEPHONE: _____

NEAREST HOSPITAL: _____ TELEPHONE: _____

NEAREST CLINIC: _____ TELEPHONE: _____

ADDRESS: _____

JOBSITE TELEPHONE NUMBERS:

PROJECT NAME/NUMBER: _____

ADDRESS: _____

SITE SUPERINTENDENT: _____ TELEPHONE: _____

CLIENT CONTACT: _____ TELEPHONE: _____

OFFICE TELEPHONE: _____ HOME PHONE: _____

OTHER IMPORTANT CONTACT NUMBERS:

NAME: _____ TELEPHONE: _____

NAME: _____ TELEPHONE: _____

NAME: _____ TELEPHONE: _____

EMERGENCY RESPONSE PROCEDURES

I. Notification

A. Alert site personnel to the emergency. Sound a site alarm to:

- Notify personnel
- Stop work activities, if necessary
- Lower background noise in order to speed communication
- Begin emergency procedures

B. Notify the client about the emergency and include essential information:

- What happened
- Where it happened
- Whom it happened to
- When it happened
- How it happened
- The extent of the damage
- What aid is needed

II. Survey the Situation

A. Available information about the incident emergency response capabilities should be evaluated. The following information should be determined, to the extent possible:

a. What happened:

- Type of incident
- Cause of incident
- Extent of damage to structures, equipment and terrain

b. Casualties:

- Victims (number, location and condition)
- Treatment required
- Missing personnel

c. What could happen? Consider:

- Types of chemicals on the job site.
- Potential for fire, explosion and release of hazardous substances.
- Location of all personnel on site relative to hazardous areas.
- Potential for danger to offsite population or environment.

d. What can be done? Consider:

- Equipment and personnel resources needed for victim rescue and hazard mitigation
- Number of uninjured personnel available for response
- Resources available on site
- Resources available from outside groups and agencies
- Time for outside resources to reach the site
- Hazards involved in rescue and response

III. Rescue/Response Action

A. No one should attempt emergency response or rescue until back up personnel and evacuation routes have been identified. Rescue/Response actions include:

1. Enforce the buddy system: No one is to enter the hazardous area without a partner. At all times, personnel in the hazardous area should be in line-or-sight or communications contact with the Supervisor.

B. Survey Casualties

1. Locate all victims and access their condition.
2. Determine resources needed for stabilization and transport.

C. Assess existing and potential hazards to site personnel and to the offsite population. Determine:

1. Whether and how to respond.
2. The need for evacuation of site personnel and offsite population.
3. The resources needed for evacuation and response.

D. Allocate resources. Allocate onsite personnel and equipment to rescue and incident response operations.

E. Request Aid. Contact the required offsite personnel or facilities, such as ambulance, fire department and police.

F. Control. Bring the hazardous situation under complete or temporary control; use measures to prevent the spread of the emergency.

G. Extricate. Remove or assist victims from the area.

H. Stabilize. Administer any medical procedures that are necessary before the victims can be moved. Stabilize or permanently fix the hazardous condition.

I. Evacuate:

1. Move site personnel to a safe distance from the incident.
2. Monitor the incident for significant changes. The hazards may diminish, permitting personnel to re-enter the site, or increase and require public evacuation.
3. Inform public safety personnel when there is a potential or actual need to evacuate the offsite population. DO NOT attempt large-scale public evacuation. This is the responsibility of government authorities.

Evacuation Procedures

When an evacuation alarm is sounded, all employees not pre-assigned to the emergency force are to immediately evacuate the building/area.

1. Walk; do not run, to the nearest exit.
2. Assemble in area(s) pre-assigned by the **Foreman** for a head count.
3. Everyone is to remain in the assembly areas until the head count is completed and your supervisor releases you or gives you further instructions.
4. **Foremen** will notify the client and **Supervisor** when they have accounted for everyone under their jurisdiction.
5. No one is to interfere with the client's or **Foreman's** emergency organization or with public emergency forces during the execution of their respective functions.
6. The **Supervisor,** as needed, will assign all Industrial Contracting personnel duties.

Severe Weather Procedures

In the event of a "tornado warning," (a tornado is imminent in the area), a decision will be made if and when a "take shelter" order will be given.

When the "take shelter" order is sounded, all company personnel will move immediately and in an orderly manner to designated shelter areas.

All company personnel will remain in the shelter areas until the "all clear" message is given.

Each shelter area will be under the direct and complete authority of the **Foreman or Supervisor.**

First-Aid Emergency Response Procedures

The following information is given for primarily self-help. In the event of an injury to you or a fellow team member always seek trained, certified assistance.

GENERAL DIRECTIONS FOR GIVING FIRST-AID:

1. Keep the injured person lying down.
2. Do not give liquids to the unconscious.
3. Control bleeding by pressing on the wound.
4. Restart breathing by giving mouth-to-mouth artificial respiration.
5. Dilute swallowed poisons.
6. Keep broken bones from moving.
7. Cover burns with thick layers of cloth.
8. Keep heart attack cases quiet.
9. For someone who has fainted, keep head lower than heart.
10. Cover eye injuries with a gauze pad.
11. **ALWAYS SEEK MEDICAL ATTENTION.**

First-Aid Emergency Response Procedures

Most often you'll run up against smaller injuries – burns, nicks, cuts, and scratches. The danger here is in the fact that most people don't bother to get first aid for these minor injuries. But unless they are properly treated, these little injuries can develop into serious infection cases. Remember the old adage about a stitch in time. Work carefully – but if you do get hurt or someone else gets hurt, get expert attention as soon as you can. Time is often very important.

When any injury occurs – serious or minor – be sure that it receives the right kind of treatment, as early as possible.

IN CASE OF A TRUE EMERGENCY the following procedure should be performed in the order listed:

1. Survey the scene.
2. Do a primary survey of the victim.
3. Phone the emergency medical services (EMS) system for help.
4. Do a secondary survey of victim.

1. SURVEY THE SCENE

When you hear a call for help, there are certain things that you should do. As you approach the victim, take in the whole picture. Don't look only at the victim. Take a look all around the victim. This should take only a few seconds and should not delay your caring for the victim. Here are the things you should be looking for:

A. Is the Scene Safe? Is the area safe enough for you to approach the victim? For example, is there an exposed electrical wire? Are there harmful fumes? Is there danger from traffic? Once you reach the victim, decide if it is safe for you and the victim to stay where you are. Unless you or the victim is in immediate danger from a hazard at the scene, **don't move the victim.**

B. What Happened? What actually happened? Look around for clues that could tell you the type of injuries the victim might have. The scene itself often gives the answers. If a person were lying next to a ladder, you would suspect that he/she fell off the ladder and may have broken bones. An electrical wire on the ground next to the victim might mean that the victim is unconscious and cannot tell you what is wrong, and there are no bystanders to give you information.

C. How Many People Are Injured? Look beyond the victim you see at first glance. There may be other victims. One person may be screaming in pain while another, more seriously injured, may go unnoticed because he/she is unconscious. In an auto accident, car doors that are open can mean there are more victims nearby who were thrown out of or walked from the car.

D. Are There Bystanders Who Can Help? If there are bystanders, use them to help you find out what happened. Maybe someone saw the victim fall. If bystander knows the victim, ask if the victim has any medical problems. This information can help you figure out what is wrong with the victim. Bystanders can also be used to call for help and to control traffic.

2. DO A PRIMARY SURVEY

The primary survey is a series of checks to find conditions that are an immediate threat to the victim's life. When you do a primary survey, you are checking the condition of the body's two most vital systems, - the respiratory system and the circulatory system.

This is done by checking the ABC's:

A = Airway
B = Breathing
C = Circulation

3. PHONE THE EMERGENCY MEDICAL SERVICES (EMS) SYSTEM FOR HELP.

4. DO A SECONDARY SURVEY

The secondary survey of a victim is a series of checks for injuries or other problems that are not an immediate threat to life, but which could cause problems if not corrected. For example, during the secondary survey, the rescuer may find that the person has a broken bone. This may not be immediately life threatening, but could become a serious problem if ignored.

The secondary survey has three parts:

1. Interviewing the victim.
2. Determining if breathing, pulse, and body temperature are normal.
3. Checking the person from head to toe, looking for injuries.

Fire Protection & Prevention Procedures

Good housekeeping and fire prevention go hand-in-hand for obvious reasons, not only on jobsites but in the home and office, as well. Fires can start anywhere and at anytime.

Always obey smoking regulations. These are made for the protection of you and of others. Usually the "No Smoking" sign indicates that there are flammable materials or conditions in the area. You cannot see the vapors, but lighting a match could involve you in a fire.

Dispose of all flammable wastes quickly and efficiently. Put flammable scraps, wiping rags, or rubbish into metal containers. Gasoline, kerosene, oil, or other flammable liquids must be disposed of in special containers – never pour down drains or sewers.

Know where and how to turn on a fire alarm. Know where the fire extinguishers are kept and know what type fire they are meant for. Know the fire exit to use in an emergency. Help emergency fire brigades, but do not get in their way.

Change clothes immediately if they get soaked with oil, kerosene, naphtha, or other flammable liquid. Not only will changing prevent skin troubles, but also it will prevent a bad turn if the retained vapor catches on fire.

GENERAL FIRE SAFETY:

- Debris is to be put in proper receptacles – Leave area clean when finished.
- Use adequate size electrical cords and GCFI's for power tools.
- Electrical machinery must be bonded or grounded.
- Flammable liquids must be stored in approved containers and handled in a safe manner.
- All state and local fire codes must be strictly adhered to.

Fire Extinguisher Classifications

Each class of fire requires the right type of extinguisher. Some types are designed to fight only one class of fire while others are effective on two or all three common classes of fire. Therefore, it is essential that you select the right size and type for each class of fire. The wrong one could do more harm than good. For example, if a water extinguisher were used on a live electrical fire it could cause severe shock or death. The following table lists the types of fires and the recommended extinguisher for each.

TYPE OF FIRE	RECOMMENDED FIRE EXTINGUISHER	FIRE FIGHTING TECHNIQUES
Class "A" – Ordinary combustibles such as rubbish, paper, rags, scrap lumber, etc.	Water, through the use of hose Pump type water cans Pressurized extinguishers Soda-acid extinguishers	Requires a cooling agent. Soak fire completely – even the smoking embers.
Class "B" – Flammable liquids, oils and grease.	ABC Dry Chemical extinguisher Carbon Dioxide extinguisher Foam extinguisher	Requires a smothering effect. Start at the base of the fire and use a swinging motion from left to right, always keeping the fire in front of you.
Class "C" – Electrical Equipment	ABC Dry Chemical extinguisher Carbon Dioxide extinguisher Halon extinguisher	Requires a non-conducting extinguishing agent. Use short bursts on the fire.

Fire Extinguisher Inspection and Maintenance

Study nameplate instructions and units carefully; familiarize yourself with the operating instructions. Most portable extinguishers operate by squeezing the lever. Each time the lever opens the valve, the stored pressure will force out some of the extinguishing agent. If lever is not released the entire contents will be discharged.

Monthly Inspection:

1. Check that extinguisher is charged by checking indicator on pressure gauge, or weighing non-gauge models. On a gauge model the gauge indicator MUST be in the green or white section. If non-gauge type, weigh unit to be sure it is pressurized (weight stamped on the cylinder). If either under-pressurized or under weight, then unit is not ready for use and requires service or replacement.
2. Check that extinguisher parts are intact (i.e. pull pin is seated, no cracks/holes in the nozzle or hose).
3. Make sure the nozzle orifice is clean and not clogged.

Annual Inspection:

Recharge extinguisher, as the contents will have a tendency to "clump together" over a long period of time.

IMPORTANT: Recharge and service extinguisher immediately after every use, even if extinguisher has only been partially discharged.

DISPOSABLE EXTINGUISHERS MUST NOT BE RECHARGED.

Protect fire extinguishers from exposure to severe weather conditions. Extinguishers are approved for temperature range –40 degrees to +120 degrees F. Extinguishers are pressurized vessels, which if exposed to excessively high temperature could rupture, and result in injury or damage. **WATER TYPE EXTINGUISHERS MUST BE PROTECTED FROM FREEZING.**

Maintain fire extinguishers in accordance with the NFPA portable fire extinguisher standard, available from the National Fire Protection Association, 470 Battery March Park, Quincy, MA.

A qualified distributor should service fire extinguishers. Service by inexperienced persons can be dangerous.

IN CASE OF FIRE:

1. Warn everyone! Be sure everyone clears the area immediately and stays safely outside.
2. Have someone call the Fire Department no matter how small the fire seems to be. (Post the phone number by each telephone.)
3. Evacuate area involved.
4. Plan your evacuation and stay near an exit so you can escape in case the fire gets out of control.
5. Stay low to avoid inhaling smoke heated fumes and poisonous gases.
6. Use the proper extinguisher for class of fire involved.

7. Grasp the extinguisher firmly and pull out locking pin (operating procedures are marked on extinguisher.
8. Stand 6 to 10 feet from the fire (contents of extinguisher are under pressure).
9. Hold the extinguisher upright, point nozzle toward base of flames and squeeze the handle.
10. Discharge contents into base of flames, sweeping back and forth across underside of flames. For wall fires, start at the bottom and work your way up and for floor fires, sweep side to side and move forward as fire is extinguished.
11. After initial assault move progressively closer to fire, enabling the discharge stream or cloud to reach the furthest burning sections. Keep your back toward the wind. If extinguisher discharge scatters the fire, you are too close, move back until scattering action ceases.
12. After the fire is out, survey area for several minutes for "flashback" or small recurrences or flame. Check the rubble. Where there is smoke there can be fire. Be sure fire is out. Clean up area immediately after fire is confirmed out. Some dry chemical agents may corrode property if not cleaned up soon after extinguishment. Shut off power if you suspect fire was of electrical origin.
13. It shall be our policy to only attempt extinguishment on incipient grade fires. Our primary function in a fire emergency is to facilitate evacuation and minimize damage.

Safety Procedures

- **Do not discharge extinguisher at a person's face.**
- Avoid inhaling chemical contents. Although not poisonous, dry chemical powders may cause temporary irritation and vomiting, if this occurs contact a physician immediately.
- When using carbon dioxide extinguishers, avoid enclosed areas – suffocation may result. Should a person be overcome, they should be removed immediately from the space containing the gas. Call a physician and apply artificial respiration.
- Carbon Dioxide (snow) can inflict cold burns if it touches skin.
- **Never** enter an area where a fire was burning, even if it appears to be out. Fire may reflash, resulting in entrapment and burns.
- **Never** use water on electrical fires.
- **Never** throw an extinguisher into a fire, explosion may occur.

Hazardous Material Spill Clean-Up Procedure

In order to be prepared for all possible spills/releases, the following information is provided for guidance.

Employees routinely using hazardous materials (especially large quantities) should anticipate the types of spills that can occur, and have on hand the proper equipment and materials to clean up a spill. Hazardous Spill Kits are available. They contain absorbent-filled "pillows", towels, waste bags, personal protective equipment (PPE), etc. appropriate for all liquid spills except hydrofluoric acid.

A material safety data sheet will contain special clean-up information and should also be consulted.

If a spill occurs, immediately alert personnel in the area. Do what is necessary to protect life. Use absorbent or other means to confine the spill if possible, and prevent the material from volatilizing (becoming airborne). Follow the guidelines in this section, according to the type of hazard.

If the spill is too large to handle, a threat to life or health, or involves a high hazard material, immediately call the Supervisor for assistance.

Spill Clean-up Guidelines

A. Low Hazard Material Spills: No fire hazard, not particularly volatile, toxic or corrosive (e.g. salt solutions).

1. Use an absorbent material that will neutralize the spill. Typical absorbent materials include sand, sodium bicarbonate for acids, clay-type absorbent (i.e. “Speed-Dri” or spill kit “pillows”) and paper towels.
2. A dustpan and brush should be used and rubber gloves and goggles should be worn.
3. Decontaminate the area with soap and water after clean up.
4. Place residue in a container, label the container, and call the Supervisor for disposal information.

B. High Hazard Material or Significant Spills of Volatile, Flammable or Toxic Materials

1. Notify all personnel in the area to vacate.
2. Extinguish flames and shut off all sources of ignition such as brush-type motors.
3. Immediately notify the Supervisor and emergency response personnel.

In the event of petroleum products, petroleum by-products, hazardous materials, or hazardous waste spills into streams threatening the environment or people must notify the appropriate person or department.

Personal Protective Equipment

Clothing and equipment referred to as Personal Protective Equipment (PPE) is designed to shield or isolate workers from chemical or physical hazards. Such clothing and equipment must be selected, tested and approved for a specified purpose and shall provide the required protection in compliance with company policies, the Occupational Safety & Health Act and other governmental regulatory agencies. The proper selection and use of PPE combined with safe work practices and procedures is paramount to maintaining the health and safety of Industrial Contracting employees.

At each jobsite it shall be the responsibility of the Supervisor to establish requirements for the use of specific protective equipment and devices in those areas where corporate policies have not been established. The Supervisor shall strictly enforce established rules regarding use of protective apparel and devices. The Supervisor must approve any substitution of PPE. Any employee who fails to observe an established protective standard shall be subject to disciplinary action as determined by existing policy.

PPE encompasses all types of gear, which may be used for increased safety and comfort. PPE includes products, which anyone may routinely use like safety glasses, hard hats, or gloves; as well as fully enclosing hazardous chemical spill clean-up suits with Self Contained Breathing Apparatus (SCBA).

In between these two extremes, there exists a range of gear that is specialized enough to require training and experience, and may be used only in certain workplaces. These include: air purifying respirators or gas masks worn for protection against common solvent vapors and dusts, cut resistant gloves, special chemical resistant gloves, lab coats and chemical aprons, face shields, air or ice cooled clothing for hot workplaces, disposable coveralls for painting, lineman's gloves for "hot" electrical work, and a vast array of hearing protection for use in noisy environments. The list goes on and grows longer as new hazards are discovered and as better-designed PPE becomes available.

Employees will use the provided PPE in accordance with defined policies, instructions and training received. Any defects or malfunctions should be reported to the supervisor immediately.

Eyes

Approved eye protection is required on all job sites.
See PPE Section on Eye Protection for additional information.

Fingers, Hands and Wrists

Cloth Gloves should be worn as general protection from dirt, chafing, abrasions, wood slivers and low heat situations.

Leather Gloves should be worn as protection from sparks, chips, rough materials and moderate heat situations.

Plastic or Rubber coated Gloves are required when handling solvents, acids, or chemically treated materials.

Di-electrically tested and approved Rubber Gloves must be worn on all power line work or wherever contact with energized circuits in excess of 600 volts is possible.

Other special purpose hand protection which may be required include arm and wrist guards.

Feet and Toes

Specialized foot protection may be required in certain areas or for activities of a particular hazard. For example, rubber boots on wet floors where acid or caustic is present and thermal and temperature resistant boots for use in cold environment.

Other special purpose foot protection, which may be required includes: shin or metatarsal guards, puncture proof soles, and rubber overshoes.

Ears

The Supervisor will indicate areas where hearing protection is required.

See PPE Section on Noise Protection for additional information.

Head

Employees will be provided with, and are required to wear, head protection whenever they are engaged in jobs in which there is a reasonable probability of injury that can be prevented by head protection.

Protective head gear is defined as helmets, hard hats, or caps used to prevent injury to the head when there is a chance of exposure to falling or flying objects or bumps to the head, or if hair length is a potential hazard around moving equipment.

The use of head protection is mandated by OSHA's General Industry Standards, 29 CFR 1910.132 and 1910.135 Subpart I – Personal Protective Equipment; and shall conform with American National Standards Institute (ANSI) Standard Z89.1 for protection from falling or flying objects. When protection from possible electrical shock is additionally required, the hard hat shall also conform to ANSI Standard Z89.2.

Respiratory Protection

In occupational settings, the most common route of entry of chemicals into the body is by inhalation. In some cases, the chemical, like many mineral dusts, may directly damage the lungs, for others, the lungs act as the route of chemical entry into the blood stream, where it can then spread to other parts of the body. This is why most occupational exposure limits, like the OSHA Permissible Exposure Limits (PELs) or the recommended Threshold Limit Values (TLVs) of the American Conference of Governmental Industrial Hygienists (ACGIH) list work place exposures in terms of airborne concentrations.

Usually, it's best to avoid breathing harmful materials by engineering out the problem. One of the best ways to control harmful airborne substances is by local exhaust ventilation. But if ventilation hasn't yet been installed or there is an emergency, using the correct respirator can provide excellent protection.

The key word is "correct". Using the wrong respirator can cause more problems. In addition, even the correct respirator must fit properly and be well cared for if its protection is to be depended on.

Other factors are important for safe use of any respirator. First and foremost, the selection of the respirator must match the hazard. The respirator must fit the face of the person using it. (Beards are out.) The person wearing the respirator must be medically checked out for respirator use. The person must be properly trained, and the respirator must be routinely cleaned, maintained, and properly stored.

The Supervisor will be responsible to determine the need for specific respiratory protection. **Consult the corporate compliance office for assistance.**

ANY CORPORATE AND/OR LOCAL POLICY REGARDING THE ENFORCED USE OF PERSONAL PROTECTIVE EQUIPMENT SHALL NOT CONTRADICT ANY CODE OR STANDARD SPECIFIED BY FEDERAL, STATE, OR LOCAL LAW.

Personal Protective Equipment Eye Protection

Industrial eye protection differs greatly from eyewear designed for general usage. These differences include passing the lens impact test, lens thickness and shape requirements and sturdy frame construction. Therefore general use type glasses will not protect the eyes from the hazards that may occur and are not approved for industrial wear. Contact lenses do not provide adequate eye protection, may cause additional safety concerns and therefore should not be worn.

The American National Standards Institute (ANSI) standard "Personnel Protection" (Z87.1) is a comprehensive document, which sets protective equipment performance standards, including detailed tests, for a broad area of hazards.

Physical hazards are common things like metal particles from grinding, wood splinters from wood-working, and so forth, that may be driven into the eye by force or enter the eye by accident. A blow to the eye is also a physical hazard. Here again, the protection is meant to prevent the physical object or force from reaching the eye. The first line of defense here is always to wear well-fitting safety glasses, usually with side shields, when on the job. Sometimes additional protection, like goggles or a face shield, may also be appropriate.

Chemical hazards are those substances that injure the eye by chemical reaction. Most often these are liquid hazards, like corrosive acids or caustic substances that can burn the eyes if splashed into the face. Some gases like ammonia, and reactive mists or dusts can also injure the eyes by chemical means. Protection against these hazards involves the use of eye protection that prevents the hazardous chemical from reaching the eye. These include chemical splash goggles, and face shields in combination with safety glasses. In cases of corrosive gases, like ammonia, full face self-contained breathing apparatus (SCBA) masks may be used to provide protection both for breathing and the eyes.

Radiation hazards are types of light that can cause eye damage. A nasty side of radiation damage is that usually the damage causes no immediate pain, thus the victim has little warning of the injury. Sources of radiation hazards include ultraviolet (UV) light from lamps or are welding; infrared (IR) light or heat radiation from hot materials, and intense visible and invisible light from laser beams. UV and IR light can be both acutely and chronically hazardous to the eyes. The common “welder’s flash” is a UV “sunburn” to the outer surface of the eyes. Both UV and IR can cause long term eye damage including clouding of the lens (cataracts). Depending upon the color or “wavelength” of light produced, lasers can cause damage to any part of the eye. One problem with visible light lasers is the possibility of burns to the retina. The retina is the inner rear part of the eye where light is converted into nerve impulses.

Protection against radiation hazards requires the use of eye protection specific for the type and intensity of the radiation. Devices include welding hoods, tinted goggles, or specific safety spectacles.

Safety eye protection must be fitted properly. Not everyone can wear the same size glasses or goggles. If you require corrective lenses, wear prescription safety glasses. Leading optical companies offer corrective prescription services.

Seventy percent of eye injuries happen to people who are wearing no eye protection, and 94% of the rest of eye injuries happen to people who are wearing the wrong kind of eye protection. So, follow the guidelines that specify the use of eye protection, and correct type of eye protection, in your workplace. Keep your protection on all the time you are in the hazardous area.

Personal Protective Equipment Noise Protection

An excessively loud environment is not only annoying, but it also reduces efficiency, causes stress, and can cause irreparable damage to hearing. Hearing loss due to noise exposure is a permanent, disabling condition. Noise induced hearing loss (NIHL) is preventable and through the use of proper ear protection, the risk can be reduced or possibly eliminated.

In the U.S. alone, about 20 million people are affected by NIHL from their jobs. NIHL is an insidious disease that can occur from a number of causes. Common causes include chronic noise exposure, injury to the ear from a blow to the head, explosive noises or rapid pressure changes, or ear infection.

For people with NIHL sounds, music, and conversation sound flat. Persons with higher pitched voices, like women and children, become much harder to understand because of this distortion. Another problem that occurs with persons with NIHL is something called the “cocktail party effect.” People with NIHL have real difficulty hearing a conversation against background noise.

Employees must take the responsibility for being fully informed about the need for hearing protection, wearing their hearing protection correctly at all times, seeking replacements as necessary and communicating problems to their supervisors.

Types of Ear Protection

Earplugs

Earplugs reduce noise when properly fitted in the outer part of the ear canal.
There are three kinds:

Formable Earplugs fit all ears. They may be made of waxed cotton or acoustical fibers and thrown away after one use (Disposable) or made of molded sponge or foam material (Semi-disposable). The semi-disposable are rolled tightly and inserted into the ear canal. The plug expands to fit and can be used for up to one week.

Pre-molded Earplugs are reusable and are available in multi-size types.

Custom-molded Earplugs are molded to the exact shape of the ear.

Canal Caps

Canal caps close off the ear canals at the opening. Caps are made of a soft, rubberlike substance. Canal caps are effective protection for many jobs. They’re a possible choice for people who can’t wear earplugs and are useful for people who enter and leave high noise areas frequently.

Earmuffs

Earmuffs fit over the whole ear to seal out noise. Earmuffs can protect against severe, high frequency noise and are recommended for people who can’t use earplugs.

Ergonomics is the study of the interaction of humans with their work environment. While it can extend to things like extremes of temperature and lightning levels, most workplace ergonomic issues relate to the strengths and structure of the human body and how it can be injured – sometimes permanently – from the organization of a person's workplace and his/her use of tools.

The term **Repetitive Trauma Injury** (RTI) really describes itself. These are injuries that occur a little at a time. Unless stopped or corrected, these injuries can become painfully debilitating. So, RTI is sometimes also called "Over Use Syndrome" because it arises from overuse of the body in ways that cause an accumulation of injury to the point of disability. Almost anyone can get RTI. Some examples include: construction workers, janitors, maintenance personnel, assembly line workers, health care workers, food servers, professional athletes, computer operators, and secretaries.

RTI results from injuries to joints, ligaments, muscles, and tendons of the body from repeated overuse of the body in certain work situations. The wrists, elbows, shoulders, neck and back are common sites of RTI. The injuries are usually related to incorrect job posture, uneven load carrying, working at extremes of reach or strength, and tools that are improper for the job. Typically, workstation design is the culprit.

Some guidelines to follow to reduce your chances of becoming a victim of ergonomic injury include:

- Avoid working repeatedly at extremes of reach or strength.
- Avoid placing constant loads on muscles; this tires them. For example, avoid constant overhead work as this loads the muscles of the neck and shoulder.
- Avoid working for long periods in awkward or uneven postures. For example, if you work at a computer terminal, don't place the screen to the side of the keyboard. Instead, keep everything in a straight line.
- Stop at least once an hour for a stretch break. Shake out your tight muscles and take a few deep breaths.
- If you work at a desk, get an adjustable desk chair – one that provides firm back and leg support.
- Avoid repeated hand motions or grasping with the wrist flexed. Try to work with the hand in a "neutral position".
- Learn to lift items properly; most "bad backs" are the result of repeated injury over time. Finally, one more incorrect lift throws your back out, but the process started long ago.
- Many tools, from hammers to computer keyboards, have recently been redesigned with better "human mechanics" in mind. Suggest their use in your workplace, and consider purchase of these for your own use.
- If you are getting recurring limb or joint pain from your work, inform your supervisor so that the ergonomic problems can be corrected.
- Seek medical attention if your pain does not improve.

Bad backs make up the majority of disabling chronic worker injuries. Be realistic about what you can lift. Don't try to lift or carry a load that's beyond your physical ability – get help! And weight just isn't the only criterion. Large, bulky items, because they are so awkward to carry, can cause other injuries like sprains or falls. Check out the path you'll be walking before you pick up the object. Prop open or get help; don't try to balance a load and open a door at the same time.

The most important rules to remember for safe lifting are these:

1. Footing is as important in lifting as it is in the batter's box. Feet close to the object; far enough apart for good balance (about shoulder-width). One foot slightly ahead of the other seems best for many.
2. Bend knees; go down to a crouch, but not a full squat. It takes double the effort to straighten up from a full squat as it does from a crouch.
3. Keep back as straight and upright as possible; don't arch it.
4. Get a good, firm grip; no lifting until your hold is strong and slip-proof. Wear gloves when handling rough equipment or material.
5. Lift object gradually by straightening your legs, keeping load close to you as you come up. (Tip: Don't frustrate your body by trying to keep your clothes clean. A dirty shirt is better than a sprained back.)
6. When lifting with a helper, plan your actions ahead of time so you can work together. Discuss who is going first and what route you will take. Consider enlisting the help of another to guide and direct you both. Don't suddenly drop your end without alerting your partner.
7. If you have to change direction, don't twist your body. Lift object to carrying position, and then turn your whole body by changing the position of your feet.
8. Lifting a load from a low position to over shoulder-high is difficult because a change in hand position is generally called for. Find a surface to rest the load on at chest height to permit the change. Use bent knees to lift the load the second time. Lifting objects to shoulder-and head-height becomes hazardous because the load is less stable. Also, most individuals have much less useable strength in that position (the lifting is now being done with the arms instead of the legs), and the load can be more hazardous if permitted to fall from the greater height.
9. Besides straining your back, placing the load back down can be hazardous for fingers. If possible, put boards or spacers under the load to leave room for you to remove your fingers. Reverse the body motion of the lifting action. If you're placing the load on a bench, first rest it on the edge, and then slide it onto the surface.
10. In setting the load down, go down with back straight, knees bent, to a crouch.

BEWARE WHEN YOU'VE BEEN AWAY – Even if you're a rugged, seasoned lifter, remember that muscles quickly get out of shape during vacation, or a spell of illness. Be doubly careful those first few days back on the job; ease into it gradually. AND REMEMBER – Whenever conveyors, hand and lift trucks, other mechanical-handling equipment can do the job, let it take the strain and spare your spine!

Permit Required Confined Space Procedure

Permit Required Confined Space Entry procedures are imperative to protecting the health and welfare of its employees.

"Confined space," means a space that:

1. Is large enough and so configured that an employee can bodily enter and perform assigned work
2. Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.)
3. Is not designed for continuous employee occupancy.
4. "Permit-required confined space (permit space)" means a confined space that has one or more of the following characteristics:
    a. Contains or has a potential to contain a hazardous atmosphere;
    b. Contains a material that has the potential for engulfing an entrant;
    c. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
    d. Contains any other recognized serious safety or health hazard.
5. "Hazardous atmosphere" means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:
    a. Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
    b. Airborne combustible dust at a concentration that meets or exceeds its LFL;
        i. NOTE: This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 feet (1.52 m) or less.
    c. Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
    d. Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, of this Part and which could result in employee exposure in excess of its dose or permissible exposure limit;
        i. NOTE: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this provision.
    e. Any other atmospheric condition that is immediately dangerous to life or health.

NOTE: For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Material Safety Data Sheets that comply with the Hazard Communication Standard, section 1910.1200 of this Part, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

Entry Procedures

1. When it is determined that entry into a "permit space" is required, the Supervisor should call the Safety Director for additional information.
2. Before entry can take place the space must be isolated from all other systems. This includes the following: (1) All mechanical equipment must be blocked, chocked and disengaged, (2) All electrical equipment must be locked and tagged out, and (3) Any lines under pressure must be blanked and bled.

All Physical hazards must be evaluated. These include temperature extremes, noise, slick/wet surfaces, falling objects, working elevation of and in the space, and the possible presence of toxic, flammable, or oxygen-displacing gases/vapors.

A device used to determine Oxygen Concentrations and Explosive Limits shall be preset by the manufacturer or be "zeroed" and checked for accuracy in ambient air immediately prior to each use. The manufacturer's recommendation shall be followed in making accuracy checks.

Immediately prior to entry, and continuously thereafter, the permit space will be checked to verify the presence of at least 19.5% but not more than 23.5% Oxygen Concentration and have an Explosive Limit not to exceed 0.0%. Remember, it is necessary to test **ALL** areas of a permit space – **TOP, MIDDLE AND BOTTOM.**

Should the Oxygen Concentration be below 19.5% or above 23.5%, Explosive Limit exceed 0.0% or if welding, cutting, or burning is to be done, mechanical ventilation must be provided. The ventilation equipment should be placed so as not to interfere with entry, exit or rescue operations. Such ventilation shall be at a minimum of 2,000 cfm. The air intake should be placed in an area that will draw in fresh air only. Caution must be exercised to prevent dead space pocketing and air channeling.

Access to the permit space may occur only after Oxygen Concentrations are between 19.5% and 23.5%, Explosive Limits are 0.0% and proper ventilation has been established.

If the job is interrupted for two (2) or more hours, all tests must be repeated.

The employee(s) designated to enter the permit space shall put on a harness with a rescue/lifeline attached. The lifeline shall be of sufficient length to allow the employee(s) free movement to accomplish the assigned task with the free end remaining anchored outside the permit space.

At least one watchperson should be assigned to remain on the outside of the permit space and be in constant (visual or verbal) contact with the worker(s) inside. The watchperson should not have any other duties but to serve as a watch and know what procedures should be followed in case of emergency.

WATCH PERSONNEL ARE NOT TO ENTER A CONFINED SPACE AT ANY TIME.

Should the watchperson be unsuccessful in establishing contact at any point (visually or vocally), they shall immediately make a series of three (3) light but distinctive pulls on the appropriate lifelines. These pulls should be at approximately one-second intervals. The employee(s) inside the permit space shall signify a satisfactory condition by answering with an identical signal. **IF NO ANSWERING SIGNAL IS RECEIVED**, the watchperson shall take immediate appropriate action as outlined in the Rescue Procedure.

Rescue Procedure

If the watchperson has been unsuccessful in contacting the workers inside the permit space, or have reason to suspect that assistance is required, the watchperson shall notify the Supervisor immediately.

They shall then notify the emergency safety and medical personnel.

PERSONNEL ARE NOT TO ENTER A PERMIT REQUIRED CONFINED SPACE UNTIL HELP ARRIVES, AND THEN ONLY WITH PROPER PROTECTIVE EQUIPMENT, LIFE LINES, AND SELF CONTAINED BREATHING UNITS.

This procedure requires employee training and logged attendance.

Forklift Safety Procedure

This procedure contains the safety precautions and requirements as indicated in Volume 29 of the Code of Federal Regulations (29 CFR), Section 1910.178 for powered industrial trucks.

It is the policy of Gemini Electric Co., Inc. that only trained and licensed personnel shall be permitted to operate forklift trucks. For employees who need to be licensed, contact the Safety Director or your supervisor.

Lockout/Tagout Procedure

On September 1, 1989, OSHA issued a final rule on the control of Hazardous Energy (Lockout/Tagout) in Volume 29 of the Code of Federal Regulations (29 CFR), Section 1910.147. This standard, which went into effect on January 2, 1990, helps safeguard employees from hazardous energy while they are performing service, installation or maintenance on machines and equipment. The standard identifies the practices and procedures necessary to shut down and lock or tag out machines and equipment. It requires that employees receive training in their role in the lockout/tagout program, and mandates that periodic inspections be conducted to maintain or enhance the energy control program.

Gemini Electric Co., Inc. recognizes that Lockout/Tagout is the preferred method of isolating machines or equipment from energy sources.

Shutdown Procedures

1. Notify the client contact and all employees affected that a lockout/tagout system is going to be utilized on a piece of equipment, as well as the reason lockout/tagout is being performed.
2. Shut down the equipment by the normal stopping procedure.
3. Operate the appropriate switches, valves or other energy isolating devices so that the equipment is isolated from its energy sources. Main disconnect switches should be turned off and locked in the off position only after the electrical power is shut off at the point of operation control. Failure to follow this procedure may cause arcing or an explosion. Stored energy must be dissipated or restrained. This can be accomplished by methods such as repositioning, blocking, bleeding down, grounding, etc.
4. Install the appropriate locks and tags on the energy isolating devices.
5. Check the effectiveness of the lockout/tagout by operating the start button or other normal operating controls to make sure the equipment will not operate. (CAUTION: RETURN OPERATING CONTROLS TO THE “NEUTRAL” OR “OFF” POSITIONS AFTER TESTING.)
6. Notify the client contact and all employees affected that the equipment has been disabled.

Troubleshooting

In order to pin point the trouble in various machines, it will be necessary, on occasion to have “power on”. When the source of the trouble has been isolated, the machine will be shut down, locked out and repaired. All of the rules pertaining to removing locks and tags and restoring power will be followed. The equipment, machine or process will again be locked out if it is necessary to continue work after completing the test or adjustments.

Release and Restart Procedures

1. Notify the client contact and all affected employees of the impending restart.
2. Inspect the work area and remove tools and other non-essential items.
3. Inspect the equipment and components to confirm the equipment is ready to be restarted.
4. Make sure the area is clear of employees.
5. Remove the lockout/tagout devices and operate the energy isolating devices to restore energy to the equipment. Restart the equipment.

This procedure must have training and logged attendance.

Welding/Cutting/Burning Procedure

This procedure applies to all project locations where welding/cutting/burning tasks are conducted.

1. The individual(s) planning to conduct welding/cutting/burning operations shall contact the Supervisor for a Welding/Cutting/Burning Permit.
2. The Supervisor and individual(s) will examine the proposed work area(s) to see that it meets all the safety precautions as outlined on the "Welding/Cutting/Burning Permit".
3. When all necessary precautions have been taken, the permit shall be issued by the Supervisor. This permit constitutes permission to perform the work in the specified area(s) for one (1) day. If the work continues in a specific location, the same permit may be used for up to one (1) week; but it must be: updated, site inspected, etc., and re-authored by the Supervisor daily.
4. The permit must be conspicuously posted at the primary work location.
5. After the completion of the job or work shift, the Supervisor will make a final check of the work area and all the adjacent areas to verify that the area is fire safe and to collect the permit.
6. The Welding/Cutting/Burning Permit shall then be forwarded to the Supervisor.

Safety Precautions

General

- **NEVER USE OXYGEN TO VENTILATE A CONFINED SPACE.**
- Do not weld or cut containers or materials, which previously had been in contact with hazardous substances unless they have been properly cleaned.
- Do not weld or cut painted or plated parts unless special precautions with ventilation have been taken. They can release highly toxic fumes or gases.
- Whenever practical, all welding, cutting and burning operations are to be shielded by fire-resistant curtains or screens to protect employees and other persons in the vicinity. If persons working nearby are unprotected by the shield, advise them to wear protective goggles.
- Keep all equipment safety guards, covers and devices in position and in good repair. Keep hands, hair, clothing and tools away from V-belts, gears, fans and all other moving parts when starting, operating or repairing equipment.

Cutting/Burning/Welding Operations

1. Prior to commencing any welding, cutting, or burning operation, thoroughly inspect the area to make sure that there are no combustible or flammable materials within 35 feet. Keep an appropriate fire extinguisher on hand at all times
2. Insulate all body parts from work and ground using dry insulation. When welding in damp locations, on metal framework such as floors, gratings or scaffolds, and when in positions such as sitting or lying, make certain the insulation is large enough to cover the full area of physical contact with work and ground.

3. Welding leads and hoses should not be run through doorways. If there is no alternative, the door should be blocked open and the hoses and leads protected from damage.
4. Welding cable is subjected to severe abuse as it is dragged over work under construction and across sharp corners. Special cable with high quality insulation should be used and cables suspended overhead where possible. Frequent inspections should be made to keep welding cables in good repair. Defective cables are to be replaced or repaired immediately.
5. Use fully insulated electrode holders (stingers). Never dip hot electrode holders in water.
6. Be sure the work cable makes a good electrical connection with the metal being welded. The connection should be as close as possible to the area being welded. Ground the work or metal to be welded to a good electrical (earth) ground. When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact can cause overheating and create a fire hazard.
7. When electrode holders are to be left unattended, the electrodes should be removed and the holders placed or protected so that no electrical contact with employees or conducting objects can be made. Discard the stub end properly.
8. Electric welders should be turned off at the end of each shift or when not in use for extended periods of time. All burning rigs must be broken down at the completion of work, with regulators removed and protective caps screwed down hand-tight. Any faulty or defective equipment must be reported to the Supervisor immediately.

Personal Protective Equipment

1. Wear oil free protective garments such as leather gloves, heavy wool or cotton shirts, shoes that extend above the ankles or spats and cuffless trousers extending below the tops of shoes, which will protect the body from the rays of the arc and from hot metal sparks.
2. Test for sufficient ventilation. Natural air ventilation must be supplemented by mechanical ventilation if any of the following conditions exist: ceiling is less than 16 feet high; there is less than 10,000 cubic feet per welder; and the welding space is confined, or cross ventilation is obstructed by balconies, partitions or other structural barriers.
3. Proper respirators or air-supplied masks must be worn when welding metals containing or coated with hazardous materials.
4. Wear earplugs when welding out of position or in confined areas.
5. Always wear safety glasses when in the welding area. Use safety glasses with side shields when near slag chipping operations.
6. Be sure the hood is in place before striking an arc, and at all times while welding. Wear hardened filter lens goggles under the hood or shield.
7. The greatest hazard of welding and burning operations is the possibility of eye injuries. Ultraviolet radiation is generated during these operations. After exposure to excessive ultraviolet radiation, eyes may develop sharp pains and/or become red and irritated. Without proper protection it is possible to damage the eyes permanently.

Cranes, Hoists & Rigging

Many types of cranes, hoists, and rigging devices are used for lifting and moving materials. It cannot be overemphasized that only qualified and licensed individuals shall operate these devices. The safety rules and guidance in this chapter apply to all operations that involve the use of cranes and hoists installed in or attached to buildings and to all our employees, supplemental labor, and subcontractor personnel who use such devices.

Cranes or hoists shall not be loaded beyond their rated capacity for normal operations. Any crane or hoist suspected of having been overloaded shall be removed from service by locking open and tagging the main disconnect switch. Additionally, overloaded cranes shall be inspected, repaired, load tested, and approved for use before being returned to service.

General Safety Rules

1. Do not engage in any practice that will divert your attention while operating the crane.
2. Respond to signals only from the person who is directing the lift, or any appointed signal person.
3. Obey a stop signal at all times, no matter who gives it.
4. Do not move a load over people. People shall not be placed in jeopardy by being under a suspended load. Also, do not work under a suspended load unless the load is supported by blocks, jacks, or a solid footing that will safely support the entire weight. Have a crane or hoist operator remain at the controls or lock open and tag the main electrical disconnect switch.
5. Ensure that the rated load capacity of a crane's bridge, individual hoist, or any sling or fitting is not exceeded. Know the weight of the object being lifted or use a dynamometer or load cell to determine the weight.
6. Check that all controls are in the OFF position before closing the main line disconnect switch.
7. If spring-loaded reels are provided to lift pendants clear off the work area, ease the pendant up into the stop to prevent damaging the wire.
8. Avoid side pulls. These can cause the hoist rope to slip out of the drum groove, damaging the rope or destabilizing the crane or hoist.
9. To prevent shock loading, avoid sudden stops or starts. Shock loading can occur when a suspended load is accelerated or decelerated, and can overload the crane or hoist. When completing an upward or downward motion, ease the load slowly to a stop.

Moving a Load

1. Center the hook over the load to keep the cables from slipping out of the drum grooves and overlapping, and to prevent the load from swinging when it is lifted. Inspect the drum to verify that the cable is in the grooves.
2. Use a tag line when loads must traverse long distances or must otherwise be controlled. Manila rope may be used for tag lines.
3. Plan and check the travel path to avoid personnel and obstructions.
4. Lift the load only high enough to clear the tallest obstruction in the travel path.
5. Start and stop slowly.
6. Land the load when the move is finished. Choose a safe landing.
7. *Never* leave suspended loads unattended. In an emergency where the crane or hoist has become inoperative, if a load must be left suspended, barricade the post signs in the surrounding area, under the load, and on all four sides. Lock open and tag the crane or hoist's main electrical disconnect switch.

Rigging

General Rigging Safety Requirements

Only select rigging equipment that is in good condition. All rigging equipment shall be inspected annually; defective equipment is to be removed from service and destroyed to prevent inadvertent reuse. The load capacity limits shall be stamped or affixed to all rigging components.

The following types of slings shall be rejected or destroyed:

- Nylon sling with
  - -Abnormal wear.
  - -Torn stitching.
  - -Broken or cut fibers.
  - -Discoloration or deterioration.
- Wire-rope slings with
  - -Kinking, crushing, bird caging, or other distortions.
  - -Evidence of heat damage.
  - -Cracks, deformation, or worn end attachments.
  - -Six randomly broken wires in a single rope lay.
  - -Three broken wires in one strand of rope.
  - -Hooks opened more than 15% at the throat.
  - -Hooks twisted sideways more than 10deg. From the plane of the unbent hook.
- Alloy steel chain slings with
  - -Cracked, bent, or elongated links or components.
  - -Cracked hooks.
- Shackles, eyebolts, turnbuckles, or other components that are damaged or deformed.

Rigging a Load

- Determine the weight of the load. Do not guess.
- Determine the proper size for slings and components.
- Do not use manila rope for rigging.
- Make sure that shackle pins and shouldered eyebolts are installed in accordance with the manufacturer's recommendations.
- Make sure that ordinary (shoulderless) eyebolts are threaded in at least 1.5 times the bolt diameter.
- Use safety hoist rings (swivel eyes) as a preferred substitute for eye bolts wherever possible.
- Pad sharp edges to protect slings. Remember that machinery foundations or angle-iron edges may not feel sharp to the touch but could cut into rigging when under several tons of load. Wood, tire rubber, or other pliable materials may be suitable for padding.
- Do not use slings, eyebolts, shackles, or hooks that have been cut, welded, or brazed.
- Install wire-rope clips with the base only on the live end and the U-bolt only on the dead end. Follow the manufacturer's recommendations for the spacing for each specific wire size.
- Determine the center of gravity and balance the load before moving it.
- Initially lift the load only a few inches to test the rigging and balance.

Powered Aerial Work Platforms

All employees who work with aerial lifts, vehicle-mounted work platforms or powered platforms are responsible for following all safe procedures established by this procedure as well as those established by the manufacturer of the equipment being used.

Inspection of aerial lifts, vehicle mounted elevated and rotation work platforms and power platforms will be made in accordance with manufacturer recommendations and company, state and federal inspection requirements and regulations.

Operation

No employee will be permitted to use or operate lifts or platforms unless he/she has been instructed, trained, and certified by a competent person in the use and operation of such equipment.

Equipment will not be moved when the boom is elevated in a working position with workers in the basket or on the platform unless equipment was manufactured to perform these functions.

Manufacturer's specifications and limitations shall be observed.

Safety harnesses will be worn by employees working from the basket, with the lanyard being attached to the basket. Under no circumstances will the lanyard be attached to a pole, the structure or other equipment.

Employees who tamper with controls and/or bypass safety devices, such as deadman switches, etc., are subject to termination.

Avoid using mobile and self-propelled lifts and platforms in outside work activities where exposure to severe wind conditions exists.

Extended boom aerial lifts or work platforms in outside areas are prohibited during electrical storms.

Outriggers must be used for that equipment equipped with same.

Operator Training and Certification

The operator's knowledge of operating and safety procedures and requirements for this equipment must be verified by a manipulative test, and by observation of his/her performance during the first month of operation.

A competent person designated at each project by the Supervisor, will conduct the manipulative test to determine an applicant's operating ability.

A manipulative test will be used to determine an applicant's ability on each type and model of equipment to be operated.

Training will be provided for each operator in compliance with Equipment Operator Training Procedures specified by the company.

Records

A training and testing record of each employee designated as an operator of equipment specified in this section, will be maintained in a file by the **Site Superintendent**.

Fall Protection

Fall Restraint, Fall Arrest Systems

When employees are exposed to a hazard of falling from a location six (6) feet or more in height, Supervisors shall ensure that fall restraint or fall arrest systems are provided, installed, and implemented according to the following requirements.

Fall restraint protection shall consist of:

- Standard guardrails as described in applicable OSHA or state regulations.
- Safety harness attached to securely rigged restraint lines.
- Safety harness shall conform to ANSI Standard:
- Class III- full body harness
- All safety harness and lanyard hardware assemblies shall be capable of withstanding a tensile loading of 4,000 pounds without cracking, breaking, or taking a permanent deformation.
- Rope grab devices are prohibited for fall restraint applications unless they are part of a fall restraint system designed specifically for the purpose by the manufacturer and used in strict accordance with the manufacturer's recommendations and instructions.
- The Supervisor shall ensure component compatibility.
- Components of fall restraint systems shall be inspected prior to each use for mildew, wear, damage, and other deterioration, and defective components shall be removed from service if their function or strength have been adversely affected.
- Anchorage points used for fall restraining shall be capable of supporting four (4) times the intended load.
- Restraint protection shall be rigged to allow the movement of employees only as far as the sides and edges of the walking/working surface.
- A warning line system as prescribed in OSHA 1926.5001 to protect worker engaged in duties between the forward edge of the warning line and the unprotected sides and edges, including the leading edge, of a low pitched roof or walking/working surface.
- A warning line system as prescribed in OSHA 1926.500 to protect worker engaged in duties between the forward edge of the warning line and the unprotected sides and edges, including the leading edge, of a low pitched roof or walking/working surface.
- Warning line system as described in OSHA 1926.500 are prohibited on surfaces exceeding a 4 in 12 pitch, and on any surface whose dimensions are less than 45 inches in all directions.

Full Body Harness

- An approved Class III full body harness shall be used
- Body harness system or components subject to impact loading shall be immediately removed from service and shall not be used again for employee protection.
- All safety lines and lanyards shall be protected against being cut or abraded.
- Body harness system shall be rigged to minimize free fall distance with a maximum free fall distance allowed of 6 feet, and such that the employee will not contact any lower lever.
- Hardware shall be drop forged, pressed or formed steel, or made of materials equivalent in strengths.
- Hardware shall have a corrosion-restraint finish, and all surfaces and edges shall be smooth to prevent damage to the attached body harness or lanyard.
- When vertical lifelines (droplines) are used, not more than one employee shall be attached to any one lifeline.
- Fully body harness systems shall be secured to anchorage's capable of supporting 5,000 pounds per employee except:
- When self-retracting lifelines or other deceleration devices are used which limit free fall to two feet, anchorages shall be capable of withstanding 3,000 pounds.
- Independent lifelines (droplines) shall have a minimum tensile strength of 5,000 pounds, except the self-retracting lifelines and lanyards which automatically limit free fall distance to two feet or less shall have a minimum tensile strength of 3,000 pounds.
- Horizontal lifelines shall have a tensile strength capable of supporting a fall impact load of at least 5,000 pounds per employee using the lifeline, applied anywhere along the lifeline.
- Lanyards shall have a minimum tensile strength of 5,000 pounds.
- All components of body harness systems whose strength is no otherwise specified shall be capable of supporting a minimum fall impact load of 5,000 pounds applied at the lanyard point of connection.
- Snap-hooks shall not be connected to loops made in webbing-type lanyards.
- Snap-hooks shall not be connected to each other.
- Full body harness systems shall be inspected prior to each use for mildew, wear, damage, and other deterioration, and defective components shall be removed from service if their function or strength has been adversely affected.

Masonry Wall Bracing

Masonry walls have the potential to blow over in the wind. Until the walls have the structural lateral supports of cross-walls, roofs, floors, buttresses, and piers there is a risk that these walls may fall and crush people by mere gusts of wind. Gemini Electric requires Wall Bracing to improve worker safety and reduce your risk of being crushed and to reduce the risk of other people onsite being crushed.

Please follow these four steps to reduce the risk of being crushed by masonry walls:

1. **Establish a Restricted Zone:**
   - Evaluate what areas are at risk and need to be restricted, these areas consist of the area around the wall where it may collapse and where debris may fall;
   - Inform the Controlling Contractor/Superintendent of the plan to restrict certain zones;
   - Place signs around the perimeter of the restricted area warning people of the danger and that only trained workers are permitted in the area; and
   - Ensure that all personnel are aware that ONLY TRAINED WORKERS ARE PERMITTED TO ENTER A RESTRICTED ZONE!
2. **Continually monitor wind speeds and have an evacuation plan to be executed when wind speed limits are exceeded:**
   - Wind speeds must be monitored in the restricted zone, as the wind speed increases or gusts, the risk of the wall blowing over and crushing you is increased.
   - Wind speed limits vary based on how long the wall has been set. Leave the restricted area when wind speed limits are exceeded.
   - Green walls (less than 24 hours old) are in their Initial Period. Walls in the initial period cannot withstand gusts that exceed 20mph. 20mph is the speed limit for Green walls.
   - Braced walls that are over 24 hours old are in their Intermediate Period. Walls in the intermediate period cannot withstand winds in excess of 35mph. 35 mph is the speed limit for intermediate walls.
   - Even braced walls are only designed to withstand a maximum of 40mph wind gusts. There is barely any room for error, which is why it is crucial to monitor the wind, consider speed limits, and evacuate the area when limits are exceeded.
3. **We offer two types of training depending on the category you fall under:**
   - **Category 1:** Category 1 training is for those who are involved in the installation process, and those who are responsible for maintaining the wall bracing and the restricted zone. Category 1 workers are typically the masons. However, there may be times when, as electricians we may have to install equipment intermittently during their building process. Any person doing direct work in the area falls under Category 1.

- **Category 2:** Category 2 is made up of all others who are required to enter the restricted zone.
- Training records are available on the job site.

4. **Wall heights must be considered in regards to wall bracing designs:**
   - Before a wall is built it is required that you first refer to Tables 1, 2 and 3 of the Masonry Wall Bracing Standard to determine which design methods you will be using once the wall being built exceeds the height limit that requires bracing.
   - Wall bracing designs will follow one of two methods; a Triangle Wall Bracing System or they must follow a Bracing Plan that was designed using accepted engineering standards for masonry walls under construction.

Please take time to review our fact sheets, diagrams, tables and other useful and interesting data materials.

FIGURE 1
RESTRICTED ZONE

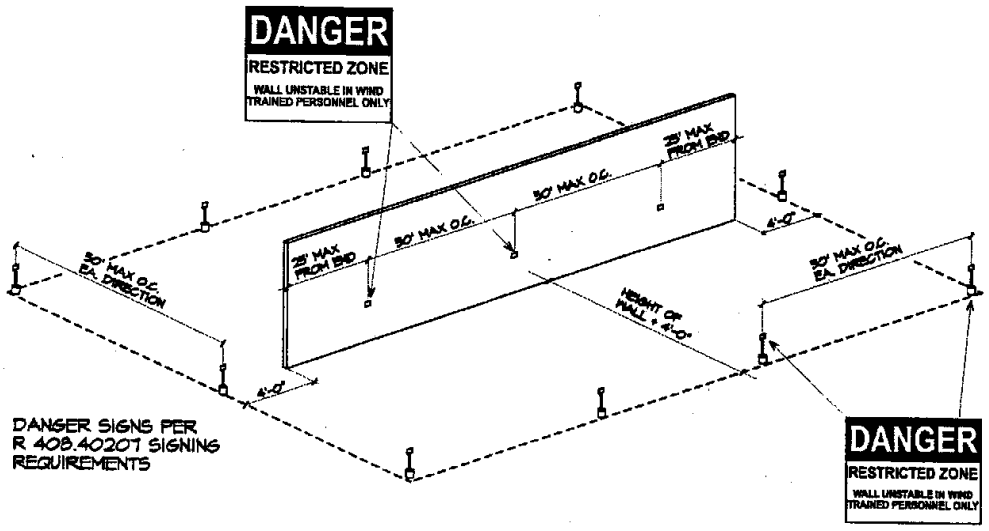


FIGURE 2

DANGER SIGN

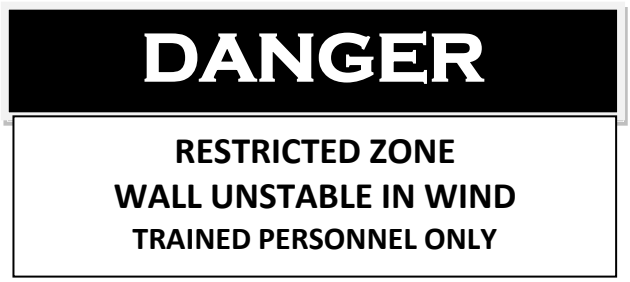
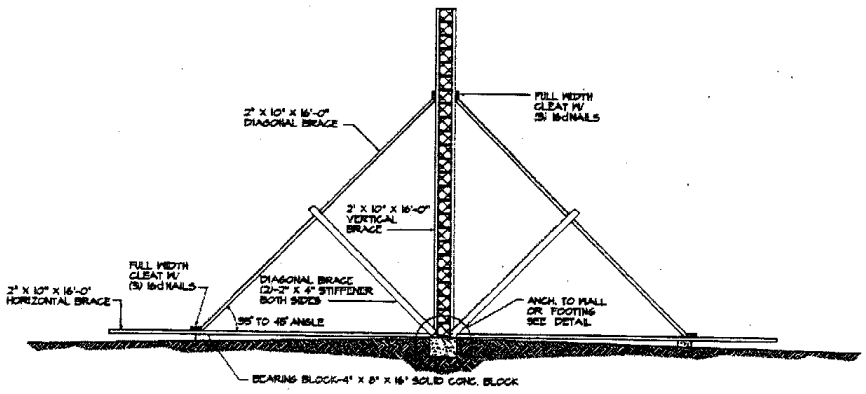
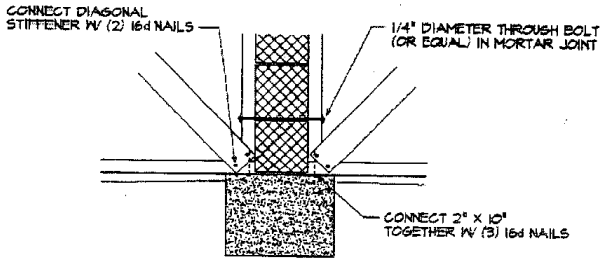


FIGURE 3

TYPICAL TRIANGEL WALL BRACING SYSTEM





CONNECTION DETAIL

Tables 1 -4; Masonary Wall Bracing

TABLE 1
INITIAL PERIOD (LESS THAN 24 HOURS)
Maximum Unbraced Height of Unreinforced Masonry
Above its Base or Highest Line of Bracing for Resisting 20 mph Wind

Nominal Thickness	Unit Weight of Masonry		
	Light Weight[1] (<105 pcf)	Medium Weight[2] (105 to <125 pcf)	Normal Weight[3] (≥125 pcf)
	Maximum Height	Maximum Height	Maximum Height
4"	8'-0"	8'-0"	8'-0"
6"	8'-0"	8'-0"	8'-0"
8"	9'-4"	10'-0"	12'-0"
10"	13'-4"	14'-8"	17'-4"
12"	18'-0"	20'-0"	24'-0"

TABLE 2[5]
INTERMEDIATE PERIOD (GREATER THAN 24 HOURS)
Maximum Unbraced Height of Unreinforced Masonry
Above its Base or Highest Line of Bracing for Resisting 35 mph Wind

Nominal Thickness	Unit Weight of Masonry			
	Light Weight[1] (<105 pcf)	Medium Weight[2] (105 to <125 pcf)	Normal Weight[3] (≥125 pcf)	Unbonded Masonry[4]
	Maximum Height	Maximum Height	Maximum Height	Maximum Height
4"	8'-0"	8'-0"	8'-0"	8'-0"
6"	8'-0"	8'-0"	8'-0"	8'-0"
8"	8'-0"	8'-0"	8'-0"	8'-0"
10"	8'-0"	8'-0"	8'-8"	8'-0"
12"	9'-4"	10'-0"	10'-8"	8'-0"

TABLE 3[5]
INTERMEDIATE PERIOD (GREATER THAN 24 HOURS)
Maximum Unbraced Height of Unreinforced Masonry
Above its Base or Highest Line of Bracing for Resisting 20 mph Wind

Nominal Thickness	Unit Weight of Masonry			
	Light Weight[1] (<105 pcf)	Medium Weight[2] (105 to <125 pcf)	Normal Weight[3] (≥125 pcf)	Unbonded Masonry[4]
	Maximum Height	Maximum Height	Maximum Height	Maximum Height
4"	8'-0"	8'-0"	8'-0"	8'-0"
6"	9'-4"	10'-0"	10'-8"	8'-0"
8"	14'-8"	15'-4"	16'-8"	9'-4"
10"	18'-8"	20'-0"	22'-0"	13'-4"
12"	23'-4"	25'-4"	28'-0"	18'-0"

[1] Light Weight Units at 95 pounds per cubic foot (pcf) unit weight.
[2] Medium Weight Units at 105 pounds per cubic foot (pcf) unit weight.
[3] Normal Weight Units at 125 pounds per cubic foot (pcf) unit weight.
[4] Flashing or other
[5] Tables 2 and 3 are based on Type N masonry cement mortar.

HAZARD COMMUNICATION "RIGHT TO KNOW"

The following hazard communication program has been established for Gemini Electric Co. Inc. This program is available for review by all employees. Please review this section as well as all forms and adhere to company policies, practices and procedures in an effort to maintain the safest workplace possible.

The Hazard Communication Program was created to protect all personnel from the hazards of all chemicals that you may be exposed to on the job and includes requirements for ensure that all hazards posed by materials are identified and labeled, and that any threats are retained until the materials are removed to the extent that they no longer pose a threat.

HAZARD DETERMINATION

Before beginning a project, the Job Foreman is required to complete a Hazard Assessment Form (GESM-HRF-001) of the jobsite as well as for each area of the job, if it is so determined that certain areas pose specific threats. The Foreman is also responsible for completing Page (2) of the Hazard Assessment Form, to prescribe guidelines for selecting the appropriate Personal Protective Equipment (PPE).

***Please Note:** *PPE alone should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls and sound construction safety practices.*

A list of Hazardous Chemicals and all Material Safety Data Sheets are included in this manual to help determine threat levels of each chemical. Each Jobsite and every company vehicle is supplied with a Safety Manual. If you need a replacement manual for any reason you are required to notify the Human Resource Manager, Office Manager or your Project manager the instant you require a replacement.

LABELING

The employee will be responsible for seeing that all containers coming in are properly labeled.

All labels shall be checked for:

- Identity;
- Hazard; and
- Name and address of responsible party.

Each employee shall be responsible for seeing that all portable containers used in their work areas are labeled with identity and hazard warning. Any containers used or introduced to the work area that do not contain the appropriate labels are to be retained/confined in a quarantine area until the appropriate safety requirements have been met. This is as easy as locking the item up or putting the item in an area that has been taped off and labeled as a restricted/quarantine area, and then informing your job foreman of the hazard so that the appropriate personnel can be contacted and a label can be obtained. Once the label has been affixed to the contained, it can be returned to service.

MATERIAL SAFETY DATA SHEETS (MSDS)

Gemini Electric Co. Inc. is responsible for obtaining and compiling the master MSDS file which is maintained in the Office in the Safety Program Files. A list of Hazardous Chemicals and copies of all MSDS's for all hazardous chemicals to which employees may be exposed, is at the end of this section of the Safety Manual which is made available on every jobsite and is also kept in every vehicle. MSDSs are available for review to all employees during each work shift. It is preferred, whenever possible that the List of Hazardous Chemicals as well as all MSDS's are posted onsite, when posting by affixing the documents is not possible, the information is to be made readily available by placing it in the Gang-Box onsite. Copies are also available to employees upon request.

Gemini Electric Co. Inc. will provide the required MIOSHA Right-To-Know poster and notifying employees of new or revised MSDSs within (5) days of receipt of new or revised MSDSs. If you are introduced to something that has not yet been identified, it is your responsibility to use quarantine methods to retain the possible hazard until the appropriate determinations are made and measures taken to ensure your safety.

EMPLOYEE INFORMATION/TRAINING

Before any new hazardous chemical is introduced into the workplace, each employee will be given information in the same manner as during regular safety classes. Attendance is taken at training sessions, by having all attendants sign in on the Training Attendance Sheet. Gemini Electric retains these attendance records so that they are available to personnel as well as customers, owners of job locations and Safety Regulators such as OSHA and MIOSHA.

At no time will an employee be discharged or discriminated against by exercising your rights regarding information about hazardous chemicals in the workplace. We encourage you to report any and all misuse or abuse of materials that may be dangerous and also any negligence or oversight in regard to any safety issues. We encourage all employees to participate and offer any suggestions that would improve workplace safety. We value employees who value safety!

FYI: As an alternative to requesting an MSDS from the office, you may also obtain copies from the Department of Public Health.

INFORMING CONTRACTORS

It is the responsibility of each Contractor to provide any other contractors with employees exposed to their chemicals with the following information:

- Hazardous chemicals with which they may come in contact.
- Measures the employees should take to lessen the risks.
- Where to get MSDSs for all hazardous chemicals.

It is the responsibility of the Contractor to obtain chemical information from other contractors when they will expose our employees to hazardous chemicals, which they may bring into our workplace.

Both of these requirements are met by providing the Superintendent or Designated Head Safety Director for a project with all safety materials. These materials are made available (usually in the job trailer) at each jobsite. It is the Job Foreman's responsibility to locate where the safety information is being made available onsite and to inform each employee working under him as to the location as well. In learning this location, the foreman is to provide our safety data at this location being sure to highlight areas of special concern or any hazards that are not typical drawing the attention of other contractors so that they may address these and any special circumstances with their employees to ensure their safety.

LIST OF HAZARDOUS CHEMICALS

The following page is a list of the chemicals used by Gemini Electric. This page may be updated periodically. If you believe that your sheet is not up to date or would like to confirm that your List of Hazardous Chemicals is up to date, you can call the office during regular business hours and ask the Office Manager for the current Revision Date of the List. At the bottom of your list is the Form Number and revision date, which will look like this: GESM-HRF-002 Rev. Date: 07/11/2011. If the date on your form is older than the date of the latest revision, then you must inform the Office Manger so that an updated form can be sent to you, and so that all other manuals can be inspected for the latest updates.

MATERIAL SAFETY DATA SHEETS (MSDS's)

Material Safety Data Sheets (MSDS's) follows the List of Hazardous Chemicals. Each and every chemical on the list has an MSDS to follow which explains the possible dangers and possible health hazards of each chemical listed. If there is a chemical listed and the MSDS is not available it is your responsibility to notify the office immediately! Likewise, if an MSDS is present, but not listed on the List of Hazardous Chemicals, you are responsible to report it, so that the data can be updated and appropriately distributed. Safety is all of our responsibility! We are all responsible to work in a manner that promotes safety and communication; together we can reduce the risk of injury or illness to ourselves and others.