

AmTech

Construction LLC

HEALTH & SAFETY MANUAL

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Chapter 1

INJURY AND ILLNESS PREVENTION PROGRAM

Written Plan

Every employer should have a written Injury and Illness Prevention plan. This is our plan. Please read it carefully. While no plan can guarantee an accident free workplace, following the safety procedures set forth in this manual will significantly reduce the risk of danger to you and your co-workers. Thank you for all our safety.

Introduction to Our Program

State and Federal law, as well as company policy, make the safety and health of our employees the first consideration in operating our business. Safety and health in our business must be a part of every operation, and every employee's responsibility at all levels. It is the intent of AmTech Construction to comply with all laws concerning the operation of the business and the health and safety of our employees and the public. To do this, we must constantly be aware of conditions in all work areas that can produce or lead to injuries. No employee is required to work at a job known to be unsafe or dangerous to his or her health. Your cooperation in detecting hazards, reporting dangerous conditions and controlling workplace hazards is a condition of employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct. Employees will not be disciplined or suffer any retaliation for reporting a safety violation in good faith.

Safety First Priority

The personal safety and health of each employee of AmTech Construction is of primary importance. Prevention of occupationally induced injuries and illnesses is of such consequence that it will be given precedence over operating productivity. To the greatest degree possible, management will provide all mechanical and physical protection required for personal safety and health, but our employees must bear primary responsibility for working safely. A little common sense and caution can prevent most accidents from occurring.

Individual Cooperation Necessary

AmTech Construction maintains a safety a health program conforming to the best practices of our field. To be successful, such a program must embody proper attitudes towards injury and illness prevention on the part of supervisors and employees. It requires the cooperation in all safety and health matters, not only of the employer and employee, but also between the employee and all co- workers. Only through such a cooperative effort can a safety program in the

best interest of all be established and preserved. Safety is no accident; think safety and the job will be safer.

Safety Program Goals

The objective of AmTech Construction is a safety and health Program that will reduce the number of injuries and illnesses to an absolute minimum, not merely in keeping with, but surpassing the best experience of similar operations by others. Our goal is zero accidents and injuries.

Statement Safety Policy

It is the policy of AmTech Construction that accident prevention shall be considered of primary importance in all phases of operation and administration. It is the intention of AmTech Construction's Management to provide safe and healthy working conditions and to establish and insist upon safe practices at all times by all employees.

The prevention of accidents is an objective affecting all levels of our company and its operations. It is, therefore, a basic requirement that each supervisor make the safety of all employees an integral part of his or her regular management function. It is equally the duty of each employee to accept and follow established safety regulations and procedures.

Every effort will be made to provide adequate training to employees. However, if an employee is ever in doubt about how to do a job or task safely, it is his or her duty to ask a qualified person for assistance. Employees are expected to assist management in accident prevention activities. Unsafe conditions must be reported immediately. Fellow employees that need help should be assisted. Everyone is responsible for the housekeeping duties that pertain to their jobs.

Every injury that occurs on the job, even a slight cut or strain, must be reported to management and/or the Responsible Safety Officer as soon as possible. Under no circumstances, except emergency trips to the hospital, should an employee leave the work site without reporting an injury. When you have an accident, everyone is hurt. Please work safely. Safety is everyone's business.

Safety Rules for All Employees

It is the policy of AmTech Construction that everything possible will be done to protect you from accidents, injuries and/or occupational disease while on the job. Safety is a cooperative undertaking requiring an ever-present safety consciousness on the part of every employee. If an employee is injured, positive action must be taken promptly to see that the employee receives adequate treatment. No one likes to see a fellow employee injured by an accident. Therefore, all operations must be planned to prevent accident&. To carry out this policy, the following rules will apply:

1. All employees shall follow the safe practices and rules contained in this manual and such other rules and practices communicated on the job. All employees shall report all unsafe conditions or practices to the proper authority, including the supervision on the project.
2. The SAFETY DIRECTOR shall be responsible for implementing these policies by insisting that employees observe and obey all rules and regulations necessary to maintain a safe workplace and safe work habits and practices.
3. Good housekeeping must be practiced at all times in the work area. Clean up all waste and eliminate any dangers in the work area.
4. Suitable clothing and footwear must be worn at all times. Personal protection equipment (Hardhats, respirators, eye protection) should be worn whenever needed.
5. All employees will participate in a safety meeting conducted by their supervisor once a week or in conjunction with the General Contractor.
6. Anyone under the influence of intoxicating liquor or drugs, including prescription drugs, which might impair motor skills and judgment, shall not be allowed on the job.
7. Horseplay, scuffling and other acts, which tend to have an adverse influence on safety or well being of other employees, are prohibited.
8. Work shall be well planned and supervised to avoid injuries in the handling of heavy materials and while using equipment.
9. No one shall be permitted to work while the employee's ability or alertness is so impaired by fatigue, illness or other causes that it might expose the employee or others to injury.
10. Employees should be alert to see that all guards and other protective devices are in proper places and adjusted, and shall report deficiencies promptly to their supervisor or the Safety Director.
11. There will be no consumption of liquor or beer on the job.
12. Employees shall not handle or tamper with any electrical equipment, machinery or air or water lines in a manner not within the scope of their duties, unless they have received specific instructions.
13. All injuries should be reported to the supervisor and/or SAFETY DIRECTOR so that arrangements can be made for medical or first aid treatment.

14. When lifting heavy objects, use the large muscles of the leg instead of the smaller muscles of the back.
15. Do not throw things, especially material and equipment. Dispose of all waste properly and carefully. Bend all exposed nails so they do not hurt anyone removing the waste.
16. Do not wear shoes with thin or torn soles.

Agreement to Participate

Every member is required to provide a safe and healthful workplace. AmTech Construction is committed to fulfilling this requirement. A safe and healthful workplace is one of the highest priorities of AmTech Construction.

The information in this manual constitutes a written injury and illness prevention program. While AmTech Construction cannot anticipate every workplace hazard, the following general principals should guide your conduct. To be safe, you must never stop being safety conscious.

Study the guidelines contained in this manual. Discuss the workplace situation with the SAFETY DIRECTOR. Attend all company sponsored training and safety meetings. Read all posters and warnings. Listen to instructions carefully. Follow the Code of Safe Work Place Practices contained herein. Participate in accident investigations as requested. Accept responsibility for the safety of others. Maintain all required documentation.

By signing the acknowledgment at the end of this handbook, each employee promises to read and implement this injury and illness prevention program. If you don't understand any policy, please ask your supervisor.

Training

Employee safety training is another requirement of an effective injury and illness prevention program. While AmTech Construction believes in skills training, we also want to emphasize safety training and all employees should start the safety training by reading this manual and discussing any problems or safety concerns with your direct supervisor. You may wish to make notes in the margins of this manual where it applies to your work.

Safety and Health Training

Training is one of the most important elements of any injury and illness prevention program. Such training is designed to enable employees to learn their jobs properly, bring new ideas to the workplace, reinforce existing safety policies and put the injury and illness prevention program into action.

Training is required for both supervision and employees alike. The content of each training session will vary, but each session will attempt to teach the following:

- a) The success of AmTech Construction's injury and illness prevention program depends on the actions of individual employees as well as a commitment by the Company.
- b) Each employee's immediate supervisor will review the safe work procedures unique to that employee's job, and how these safe work procedures protect against risk and danger.
- c) Each employee will learn when personal protective equipment is required or necessary, and how to use and maintain the equipment in good condition.
- d) Each employee will learn what to do in ease of emergencies occurring in the workplace. Supervisors are also vested with special duties concerning the safety of employees. The supervisors are key figures in the establishment and success of AmTech Construction's injury and illness prevention program. They have primary responsibility for actually implementing the injury and illness prevention program, especially as it relates directly to the workplace. Supervisors are responsible for being familiar with safety and health hazards to which employees are exposed, how to recognize them, the potential effects of these hazards, and rules and procedures for maintaining a safe workplace. Supervisors shall convey this information to the employees at the workplace, and shall investigate accidents according to the accident investigation policies contained in this manual.

Periodic Safety Training Meetings

AmTech Construction has periodic safety meetings on a regular basis. The purpose of the meeting is to convey safety information and answer employee questions. The format of most meetings will be to review, in language understandable to every employee, the content of the injury prevention program, special worksite hazards, serious concealed dangers and material safety data sheets. Each week, the SAFETY DIRECTOR will review a portion of the company's safe work practices contained in this booklet, or other safety related information. Whenever a new practice or procedure is introduced into the workplace, it will be thoroughly reviewed for safety. A sign-up sheet will be passed around each meeting, and notes of the meeting will be distributed afterwards. A copy of the notes will also be placed in the Safety Notes Record Book.

Employee attendance is mandatory.

Employee Responsibility for Training

Teaching safety is a two-way street. AmTech Construction can teach safety, but only employees

can practice safety. Safety education requires employee participation.

Periodically, a meeting of all supervisory employees will be conducted for the purpose of safety instruction. The employees will discuss the application of the Company's injury and illness prevention program to actual job assignments. They will also read and discuss a section of the manual and review application of general safety rules to specific situations.

Remember, the following general rules apply in all situations:

- a) No employee should undertake a job that appears to be unsafe.
- b) No employee is expected to undertake a job until he/she has received adequate safety instructions, and is authorized to perform the task.
- c) No employee should use chemicals without fully understanding their toxic properties and without the knowledge required to work with these chemicals safely.
- d) Mechanical safeguards must be kept in place.
- e) Employees must report any unsafe conditions to the job site supervisor and the Responsible Safety officer.
- f) Any work-related injury or illness must be reported to management at once.
- g) Personal protective equipment must be used when and where required and must be properly maintained.

Communication

Employers should communicate to employees their commitment to safety and to make sure that employees are familiar with the elements of the safety program. AmTech Construction communicates with its employees orally, in the form of directions and statements from your supervisor, written, in the form of directives and this manual, and by example. If you see a supervisor or management do something unsafe, please tell that person. We sometimes forget actions speak louder than words.

Accident Prevention Policy Posting

Each employee has a personal responsibility to prevent accidents. You have a responsibility to your family, to your fellow workers and to the Company. You will be expected to observe safe practice rules and instructions relating to the efficient handling of your work.

Your responsibilities include the following:

- a) Incorporate safety into every job procedure. No job is done efficiently unless it has been done safely.
- b) Know and obey safe practice rules.
- c) Know that disciplinary action may result from a violation of the safety rules.
- d) Report all injuries immediately, no matter how slight the injury may be.
- e) Caution fellow workers when they perform unsafe act.
- f) Don't take chances.
- g) Ask questions when there is any doubt concerning safety.
- h) Don't tamper with anything you do not understand.
- i) Report all unsafe conditions or equipment to your supervisor immediately.
- j) Accident Prevention Policy Posting
- k) A copy of this manual will be posted in the work area.

It is the policy of AmTech Construction to provide a safe and clean workplace and to maintain sound operating practices. Concentrated efforts shall produce safe working conditions and result in efficient, productive operations. Safeguarding the health and welfare of our employees cannot be stressed too strongly.

Accident prevention is the responsibility of all of us. Department heads and supervisors at all levels shall be responsible for continuous efforts directed toward the prevention of accidents. Employees are responsible for performing their jobs in a safe manner.

The observance of safe and clean work practices, couple with ongoing compliance of all established safety standards and codes, will reduce accidents and make our company a better place to work.

Hazard Identification & Abatement

This written safety and health plan sets out a system for identifying workplace hazards and correcting them in a timely fashion. Please review it carefully with your supervisor. Remember, safety is everyone's responsibility.

Safety Audits

The best method to establish a safer workplace is to study past accidents and worker compensation complaints. By focusing on past injuries, AmTech Construction hopes to avoid similar problems in the future. Therefore, whenever there is an accident, and in many cases upon review of past accidents, you may be requested to participate in a safety audit review. During the interview, there will be questions about the nature of the investigation and the workplace safety related to the incident. Please answer these questions honestly and completely. Also, please volunteer any personal observations and/or suggestions for improved workplace safety.

Based upon the study of past accidents and industry recommendations, a safety-training program has been implemented. In addition to other preventative practices, there will be a group discussion of the cause of the accident and methods to avoid the type of accidents and injury: situations experienced in the past. Work rules will be reviewed and modified based upon the study of these accidents.

In addition to historical information, workplace safety depends 'on workplace observation. Your supervisor is responsible for inspecting your working area daily before and while you are working, but this does not mean you are no longer responsible for inspecting the workplace also. Each day, before you begin work, inspect the area for any dangerous conditions. Inform your supervisor of anything significant, so other employees and guests are advised. You may also be given written communications regarding unsafe conditions or serious concealed dangers.

Review this communication carefully and adjust your workplace behavior to avoid any danger or hazards. If you are unclear or unsure of the significance of this written communication, contact your supervisor and review your planned actions before starting to work. It is better to wait and check, then to go ahead and possibly cause and injury to yourself and others.

Managers must provide written notice to employees *or* any serious concealed dangers of which they have actual knowledge. In addition to providing written notice of all serious concealed dangers to employees, managers are required to report serious concealed dangers to either OSHA or an appropriate administrative agency within fifteen days, or immediately if such danger would cause imminent harm, unless the danger is abated.

Merely identifying the problem is not sufficient. The danger must be reported to the appropriate supervisor and the Responsible Safety Officer, who then will correct the problem. If the danger cannot be corrected, then all employees will be warned to take protective action so that the danger will not result in injuries.

Workplace Inspections

In addition to the examination of records, workplace safety inspections will occur periodically, when conditions change or when a new process or procedure is implemented. During these

inspections, there will be a review of the injury and illness prevention policy and AmTech Construction code of safe practices.

Accident Investigation

A primary tool used by AmTech Construction to identify the areas responsible for accidents is a thorough and properly completed accident investigation. The results of each investigation will be reduced to writing and submitted for review by management and AmTech Construction's insurance risk management advisors, and, if the accident resulted in serious injury, to Company attorneys. If the accident resulted in serious injury, the procedure will be directed by the attorneys to provide the most reliable evidence or description legally permissible. All investigations pursuant to the directions of legal counsel will be protected by all applicable privileges, if any. The attorney will provide more detail on this topic during the investigation.

A written report should be prepared from notes and diagrams made at the accident scene. All statements should include the time and date given, and the town or country where the statement was made. A simple statement that the description is sworn to be true under penalty of perjury with the date, place and time should be included. All pictures should be similarly identified. Also, make sure that the names and addresses and day and evening phone numbers of all eyewitnesses are noted or recorded.

If a formal police report or other official investigation is conducted by any government agency, get the name and badge number of the official, or a business card, and find out when a copy of the official report will be available to the public. If you are requested to make a statement, you have the right to have the Company lawyer attend your statement at no cost to you.

A satisfactory accident report will answer the following questions:

What happened? The investigation report should begin by describing the accident, the injury sustained, the eyewitnesses, the date, time and location of the incident and the date and time of the report. Remember: who, what, when, where and how are the questions that the report must answer.

Why did the accident occur? The ultimate cause of the accident may not be known for several days after all the data are analyzed. However, if an obvious cause suggests itself, include your conclusions as a hypothesis at the time you give your information to the person in charge of the investigation.

What should be done? Once a report determines the cause of the accident, it should suggest a method for avoiding future accidents of a similar character. This is a decision by the Responsible Safety Officer and the supervisor on the project, as well as top management. Once a solution has been adopted, it is everyone's responsibility to implement it.

What has been done? A follow up report will be issued after a reasonable amount of time to

determine if the suggested solution was implemented, and if so, whether the likelihood of another accident has been reduced.

Records

AmTech Construction maintains records of employee training, hazard identification and abatement, and accident investigation.

OSHA Records Required

Copies of required accident investigations and certification of employee safety training should be maintained by the Responsible Safety Officer. A written report will be maintained on each accident, injury or on-the-job illness requiring medical treatment. A record of each such injury or illness is recorded on OSHA Log and Summary of Occupational Injuries Form 200 according to its instructions. Supplemental records of each injury are maintained on OSHA Form 101, or Employers Report of Injury or Illness Form 5020. Every year, a summary of all reported injuries or illnesses is posted no later than February 1st, for one month, until March 1st, on OSHA Form 200. These records are maintained for five years from the date of preparation.

General Statement on Safety

AmTech Construction strives to maintain a safe place to work and to employ safe workers. It is your responsibility to conduct your work in a safe, responsible manner. Immediately report all accidents occurring on Company premises to your supervisor.

Each employee has an individual responsibility to prevent accidents. It is to the benefit of all employees and AmTech Construction that you report any situation or condition you believe may present a safety hazard, including any known or concealed dangers in your work area. AmTech Construction encourages you to report your concern either to your immediate supervisor or to a member of the Safety Committee. The supervisor or Safety Committee will take immediate action to investigate the matter.

Safety Equipment

Proper safety equipment is necessary for your protection. The Company provides the best protective equipment it is possible to obtain.

Use all safeguards, safety appliances or devices furnished for your protection and comply with all regulations that may concern or affect your safety. Wear your gear properly - all snaps and straps fastened, cuffs not cut or rolled.

Your supervisor will advise you as to what protective equipment is required for your job.

Protective Clothing

Certain jobs require standard safety apparel and appliances for the protection of the employee. Your supervisor is aware of the requirements and will furnish you with the necessary approved protective appliances. These items shall be worn and effectively maintained as a condition of your continued employment and part of our mutual obligation to comply with the Occupational Safety and Health Act.

Safety goggles, glasses and face shields shall correspond the degree of hazard, i.e., chemical splashes, welding flashes, impact hazard, dust, etc. Do-not alter or replace an approved appliance without permission from your supervisor.

Rubber gloves and rubber aprons shall be worn when working with acids, caustics or other corrosive materials.

Specified footwear must be worn.

No jewelry shall be worn around power equipment.

All employees shall wear ear protection (approved muffs or plugs) during working within any area identified as having excess noise levels. Your supervisor will instruct you in the proper use of the appliance.

Smoking and Fire Safety

Fire is one of the worst enemies of any facility. Learn the location of the fire extinguishers. Learn how to use them.

You can prevent fires by observing the smoking rules:

- a) Smoking is not allowed on the site, except in designated areas.
- b) Smoking is not permitted in the restrooms.
- c) If you are not sure about where you may smoke, ask the supervisor.

Reporting

All serious accidents must be reported to OSHA. In cases of hospitalization or death, a full investigation with copies to governmental authorities will be required. In less serious cases, the investigation report must be presented to the company for disclosure to its insurance carrier and for remedial action to the work site.

Chapter 2

General Code of Safe Work Practices

General Fire Safety

Our local fire department is well acquainted with our facility, its location and specific hazards.

All fire doors and shutters must be maintained in good operating condition. Fire doors and shutters should be unobstructed and protected against obstructions, including their counterweights. Fire door and shutter fusible links must be in place. All automatic sprinkler water control valves, if any, air and water pressures should be checked routinely. The maintenance of automatic sprinkler systems is assigned to the Responsible Safety Officer. Sprinkler heads should be protected by metal guards if they could possibly be exposed to damage. Proper clearance must be maintained below sprinkler heads.

Portable fire extinguishers are provided in adequate number and type and are located throughout the facility. Fire extinguishers are mounted in readily accessible locations. Fire extinguishers are recharged regularly and the date of last inspection noted on their tags. All employees are periodically instructed in the use of extinguishers and fire protection procedures. Notify the Responsible Safety Officer of any damage to fire protection equipment

Powder Actuated Tools

The employee using power-actuated tools must be properly trained and will be issued a card as proof of that training. Some of the powder-actuated tools being used have written approval of the Division of Occupational Safety and Health. Check to see which tools require a certification and which certificates have been issued.

Each powder-actuated tool should be stored in its own locked container when not being used. Signs measuring at least 7" by 10" and in bold face typed reading "POWDER-ACTUATED TOOL IN USE" must be placed conspicuously when the tool is being used.

All powder-actuated tools must be left unloaded until they are actually ready to be used. Each day before using, each powder-actuated tool must be inspected *for* obstructions or defects.

The powder-actuated tool operators must have and must use appropriate personal protective equipment such as hard hats, safety goggles, safety shoes and ear protectors whenever they are using the machine.

Machine Guarding

Before operating any machine, every employee must have completed a training program method of machine operations. It is the primary purpose of supervision to ensure the employees are following safe machine operating procedures. There will be a regular safety inspection of machinery and equipment.

All machinery and equipment must be kept clean and properly maintained. There must be sufficient clearance provided around and between machines to allow for safe operations, set up, servicing, material handling and waste removal.

All equipment and machinery should be securely placed, and anchored when necessary prevent tipping or other movement that could result in personal injury. Most of the time, machinery should be bolted to the floor to prevent. Falling during an earthquake and the electrical cord to the machinery fixed with a breaker or other shut-off device to stop power in case machine movement.

There must be a power shut-off switch within reach of the operator's position at each machine. Electrical power to each machine shall be capable of being locked out for maintenance, repair or security. The non-current carrying metal parts of electrically operated machines must be grounded.

The foot-operated switches are guarded and/or arranged to prevent accidental actuation by personnel or falling objects. All manually operated valves and switches controlling the operation of equipment and machines must be clearly identified and readily accessible.

All EMERGENCY stop buttons are colored RED. All the pulleys and belts, which are feet of the floor or working level, are properly guarded. All moving chains and gears are properly guarded. All splashguards mounted on machines that use coolant must be positioned to prevent coolant from splashing the employees.

The supervisor will instruct every employee in the work area on the methods provided to protect the operator and other employees in the machine area from hazards created by the operation of a machine, such as nip points, rotating parts, flying chips and sparks. The machinery guards must be secured and arranged so they do not present a hazard. All special hand tools used for and removing materials must protect the operator's hands. All revolving drums, barrel containers should be guarded by an enclosure that is interlocked with the drive mechanisms that rotation cannot occur unless the guard enclosure is in place. All arbors and mandrels must have firm and secure bearings and be free of play. A protective mechanism has been installed to prevent machines from automatically starting when power is restored after a failure or shutdown. Machines should be constructed so as to be free from excessive vibration when the size tool is mounted and run at full speed. If the machinery is cleaned with compressed air, the air must be pressure controlled and personal protective equipment or other safeguards used to protect operators and other workers from eye and bodily injury. All fan blades protected by a guard having openings no larger than 1/2" when operating within 7' feet of the saws used for ripping equipment must be installed with

anti-kickback devices and spreaders. All radial arm saws must be arranged so that the cutting head will gently return to the back of the table when released.

Electrical

The workplace will be aware of the OSHA Electrical Safety Orders and will comply with the same. Employees will be required to report any hazard to life or property that is observed in connection with a job, electrical equipment or lines. Employees will be expected to make preliminary inspections or appropriate tests to determine conditions before starting work. When equipment or lines are to be serviced, maintained or adjusted, employees must be aware of open switches. Lockouts must be tagged whenever possible.

Equipment such as electrical tools or appliances must be grounded or of the double insulated type. Extension cords being used must have a grounding conductor. The workplace supervisor must be aware if multiple plug adaptors are prohibited.

If ground-fault circuit interrupters are installed on each temporary 15 or 20 ampere, 120 volt AC circuit at locations where construction, demolition, modifications, alterations or excavations are being performed, temporary circuits must be protected by suitable disconnecting switches or plug connectors with permanent wiring at the junction.

Electricians must be aware of the following:

Exposed wiring and cords with frayed or deteriorated insulation must be repaired or replaced.

Flexible cords and cables must be free of splices or tape.

Clamps or other securing means must be provided on flexible cords or cables at plugs, receptacles, tools, and equipment. The cord jacket must be held securely in place. All cord, cable and raceway connections must be intact and secure.

In wet or damp locations, electrical tools and equipment must be appropriate for the use or location, or other wise protected.

The location of electrical power lines and cables (overhead, underground, under floor, other side of walls) must be determined before digging, drilling or similar work is begun.

All metal measuring tapes, ropes, hand lines or similar devices with metallic thread woven into the fabric are prohibited for use where they could come in contact with energized parts of equipment or circuit conductors.

The use of metal ladders is prohibited in areas where the ladder or the person using the ladder could come in contact with energized parts of equipment, fixtures or conductors.

All disconnecting switches and circuit breakers must be labeled to indicate their use or equipment served.

A means for disconnecting equipment must always be opened before fuses are replaced.

All interior-wiring systems must include provisions for grounding metal parts or electrical raceways, equipment and enclosures.

All electrical raceways and enclosures must be fastened securely in place.

All energized parts of electrical circuits and equipment must be guarded against accidental

contact by approved cabinets or enclosures.

Sufficient access and working space will be provided and maintained around all electrical equipment to permit ready and safe operations and maintenance.

All unused openings (including conduit knockouts) in electrical enclosures and fittings must be closed with appropriate covers, plugs or plates.

Electrical enclosures such as switches, receptacles, junction boxes must be provided with tight-fitting covers or plates.

Disconnecting switches for electrical motors in excess of two horsepower must be capable of opening the circuit when the motor is in a stalled condition without exploding. (Switches must be horsepower rate equal to or in excess of the motor hp rating.)

Low voltage protection must be provided in the control device of motor driven machines or equipment, which could cause injury from inadvertent starting.

A motor disconnecting switch or circuit breaker must be located within sight of the motor-control device.

Motors:

a) Must be located within sight of their controller

b) Must have their controller disconnecting means capable of being locked in the open position

c) Or must have separate disconnecting means installed in the circuit within sight of the motor.

A controller for a motor in excess of two horsepower must be rated equal to but not in excess of the motor it services.

Employees who regularly work on or around energized electrical equipment or lines will be instructed in cardio-pulmonary resuscitation (CPR) methods.

Employees will be trained on how to work on energized lines or equipment over 600 volts.

Material Handling

In the handling of materials, employees must know the following:

There must be safe clearance for equipment through aisles and doorways.

Aisle ways must be designated, permanently marked and kept clear to allow unhindered passage.

Motorized vehicles and mechanized equipment will be inspected daily or prior to use.

Vehicles must be shut off and brakes must be set prior to loading or unloading.

Containers of combustibles or flammables, when stacked while being moved, must be separated by Dunn age sufficient to provide stability.

If dock boards (bridge plates) are used when loading or unloading operations are taking place between vehicles and docks, precautions must be observed.

Trucks and trailers will be secured from movement during loading and unloading operations.

Dock plates and loading ramps will be constructed and maintained with sufficient strength to support imposed loading.

Hand trucks and A-frames must be maintained in safe operating condition.

Chutes must be equipped with sideboards of sufficient height to prevent the handled materials from falling off at the delivery end of rollers or chutes, provisions must be made to break the

movement of the handled materials.

Pallets must be inspected before being loaded or moved.

Hooks with safety latches or other arrangements will be used when hoisting materials, so that slings or load attachments won't accidentally slip off the hoist hooks.

Securing chains, ropes, chokers or slings must be adequate for the job to be performed.

When hoisting material or equipment, provisions must be made to assure no one will be passing under the suspended loads.

Material Safety Data Sheets will be available to employees handling hazardous substances.

Ventilation

In the operation of any facility ventilation system, there needs to be a design to integrate several systems of control, which will expel contaminants and provide clean air. The systems must take into consideration the volume and velocity that will be needed to successfully remove contaminants. The system must not fail in the case of an emergency situation where two contaminants are exposed to each other when a fire or explosion occurs. In the design of the system, clean out ports or doors that are provided at intervals will not exceed 12 feet in all horizontal runs of exhaust ducts. The system must be operational so that it will not offset the functions of other operations.

Licenses and Permits

In addition to other postings required by law, AmTech Construction maintains a copy of all necessary business licenses, permits, and notices required by the National Labor Relations Board or other governmental bodies, notices of citations during abatement periods, and other required information which are posted during the appropriate times (on the bulletin board).

Personal Protective Equipment Clothing

1. Where there is a danger of flying particles or corrosive materials, employees must wear protective goggles and/or face shields provided (or approved) by AmTech Construction.
2. Employees are required to wear safety glasses at all times in areas where there is a risk of eye injuries such as punctures, contusions or burns.
3. Employees who need corrective lenses are required to wear only approved safety glasses, protective goggles or other medically approved precautionary procedures when working in areas with harmful exposures or risk of eye injury.
4. Employees are required to wear protective gloves, aprons, shields and other means provided in areas where they may be subject to cuts, corrosive liquids and/or harmful chemical
5. Hard hats must be worn in areas subject to falling objects, and at all times while at

construction sites.

6. Appropriate footwear including steel toed shoes must be worn in an area where there, any risk of foot injuries from hot, corrosive, poisonous substances, falling objects, crushing or penetrating action.
7. When necessary employees must use the approved respirators, which are provided regular and emergency use.
8. All safety equipment must be maintained in sanitary condition and ready for use. Remove any defective equipment immediately.
9. An eye wash facility is located (in the restroom). If any irritant gets into an employ eyes, call for medical assistance immediately and flush the eye out with clean water.
10. Food may not be eaten in work areas, or in places where there is any danger of exposure to toxic materials or other health hazards. Ask your supervisor to identify safe eating areas.
11. In cases where the noise level exceeds certain levels, ear protection is required.
12. In cases of cleaning toxic or hazardous materials, protective clothing provided must wear.

Hardhats

At AmTech Construction hardhats are required (at all times, in designated areas, when appropriate). Hardhats are common in our industry. There was a time, about one hundred years ago, when no one wore a hardhat. But, over time, then value of hard hats to save lives was firmly proven, so that the entire industry now accepts this safety device as a natural article of clothing like a football player wearing a helmet during a game.

Sometimes a person fails to wear a hardhat, either through forgetfulness or through underestimating the risk of head injury, which can be prevented by wearing one. Remember, all it takes is a carelessly dropped tool or piece of material coming down on your head to cause se head injury or even death. There are a number of workers disabled with various types of head injuries and vision problems because they didn't wear a hardhat.

When you wear a hardhat, wear it right. Keep it squarely on your head with the inside band properly adjusted. See your supervisor if you're having trouble adjusting the hardhat.

Work Environment, General

Work sites must be clean and orderly. Work surfaces must be kept dry or appropriate means taken to assure the surfaces are slip-resistant. Spills must be cleaned up immediately. All

combustible scrap, debris and waste must be stored safely and removed promptly. Combustible dust must be cleaned up with a vacuum system to prevent the dust from going into suspension. The accumulated combustible dust must be removed routinely. Metallic or conductive dust must be prevented from entering or accumulating on or around electrical enclosures or equipment.

Waste containers must be covered. Oily and paint soaked rags are combustible and should be discarded in seal able metal containers only. Paint spray booths, dip tanks and paint areas must be cleaned regularly.

All oil and gas fired devices should be equipped with flame failure controls that will prevent flow of fuel if pilots or main burners are not working. Ask your supervisor where these controls are located.

Make sure all pits and floor openings are either covered or otherwise guarded,

Walkways

All aisles and passageways must be kept clear. Also, aisles and passageways should be clearly marked. Wet surfaces must be covered with non-slip material and all holes properly covered or marked with warning guards. All spills must be cleaned up immediately, and a caution sign placed on all wet or drying surfaces.

In cases of passageways used by forklifts, trucks or other machinery, use a separate aisle for walking, if available. If no separately marked aisle is available, use extreme caution. Remember, walking in a passageway used by machinery is like walking in the middle of a street used by cars; you may have the right of way, but the heavier vehicle can't always see you and can't always stop in time. The key to moving around in such circumstances is to stop, look and listen and then to move when there is no danger. Make eye contact with the drivers of moving vehicles so that you know that they know you are there.

Equipment must be properly stored so that the sharp edges do not protrude into walkways. Changes in elevations must be clearly marked, as must passageways near dangerous operations like welding, machinery operation or painting. If there is a low ceiling, a warning sign must be posted. If the walkway or stairway is more than thirty inches above the floor or ground, it must have a guardrail.

If an employee is aware of any breach of these standards, please inform the workplace supervisor.

Floor and Wall Openings

Be careful when working near floor and wall openings. All floor openings (holes) should be guarded by a cover guardrail or equivalent barrier on all sides except at the entrance to stairways

and ladders. Toe boards must be installed around the edges of a permanent floor opening. Skylights must be able to withstand at least 200 lbs pressure. Glass used in windows, doors and walls (including glass block) must be able to withstand a human impact, and if required by code, be shatterproof "safety glass". Before beginning work at a new location, inspect it to insure that all floor openings, which must remain open, such as floor drains, are covered with grates or similar covers. In roadways and driveways, covers with capacity to carry a truck rear axle load of at least 20,000 lbs must protect all manholes and trenches. In office buildings, fire resistive construction requires that the doors and hallway closures be properly rated and be equipped with self-closing features. Be sure that there are at least two fire emergency exits accessible from your location at all times.

Work Area, General

Fire extinguishers must remain accessible at all times. Means of egress should be kept unblocked, well lighted and unlocked during work hours. Excessive combustibles (paper) may not be stored in work areas.

Aisles and hallways must be kept clear at all times. Designated employees have been trained to respond to a fire or other emergency. Workplaces are to be kept free of debris, floor storage and electrical cords.

Adequate aisle space is to be maintained. File cabinet drawers should be opened one at a time and closed when work is finished.

Proper lifting techniques are to be used by employees to avoid over exertion and strain when carrying loads. "No alcohol or any intoxicating substances may be consumed prior to or during work.

Tool Maintenance

Faulty or improperly used hand tools are a safety hazard. All employees shall be responsible for ensuring that tools and equipment (both company and employee-owned) used by them or other employees at their workplace are in good condition. Hand tools such as chisels, punches, etc., which develop mushroom heads during use, must be reconditioned or replaced as necessary. Broken or fractured handles on hammers, axes and similar equipment must be replaced promptly. Worn or bent wrenches should be replaced regularly. Appropriate handles must be used on files and similar tools.

Appropriate safety glasses, face shields, etc., must be worn while using hand tools or equipment which might produce flying materials or be subject to breakage. Eye and face protection must be worn when driving in tempered spuds or nails.

Check your tools often for wear or defect. Jacks must be checked periodically to assure they are in good operating condition. Tool handles must be wedged tightly into the heads of tools. Tool cutting edges should be kept sharp enough so the tool will move smoothly without binding or skipping. When not in use, tools should be stored in a dry secure location.

Ladders

Check ladders each and every time before you climb. Ladders should be maintained in good condition: joints between steps and side rails should be tight; hardware and fittings securely attached; and movable parts operating freely without binding or undue play. Non-slip safety feet are provided on each ladder. Ladder rungs and steps should be free of grease and oil. Employees are prohibited from using ladders that are broken, missing steps, rungs or cleats or that have broken side rails or other faulty equipment.

It is prohibited to place a ladder in front of doors opening toward the ladder except when the door is blocked open, locked or guarded. It is prohibited to place ladders on boxes, barrels or other unstable bases to obtain additional height. Face the ladder when ascending or descending.

Be careful when you climb a ladder. Do not use the top step of ordinary stepladders as a step. When portable rung ladders are used to gain access to elevated platforms, roofs, etc., the ladder must always extend at least 3 feet above the elevated surface.

It is required that when portable rung or cleat type ladders are used, the base must be so placed that slipping will not occur, unless it is lashed or otherwise held in place.

All portable metal ladders must be legibly marked with signs reading "CAUTION"-"Do Not Use Around Electrical Equipment". Employees are prohibited from using ladders as guys, braces, skids, gin poles or for other than their intended purposes. Only adjust extension ladders while standing at a base (not while standing on the ladder or from a position above the ladder). Metal ladders should be inspected for tears and signs of corrosion. Rungs of ladders should be uniformly spaced at 12 inches, center to center.

Portable Power Tools

Portable power tools pose a special danger to employees because they are deceptively small and light, yet they can do great bodily harm if used improperly or poorly maintained. These rules apply to all power tools, but are especially important when handling portable saws, drills and power screwdrivers.

Check your equipment before you use it. All grinders, saws and similar equipment should be equipped with appropriate safety guards. Power tools should not be used without the correct shield, guard or attachment recommended by the manufacturer.

Portable circular saws must be equipped with guards above and below the base shoe. Circular saw guards should be checked periodically and before each use to assure they are not wedged thus leaving the lower portion of the blade unguarded.

All rotating or moving parts of equipment should be guarded to prevent physical contact. All Cord-connected, electrically operated tools and equipment should be effectively grounded or of the approved double insulated type. Effective guards must be in place over belts, pulleys, chain, sprockets, on equipment such as concrete mixers, air compressors, etc. If portable fans are provided, they must be equipped with full guards or screens having openings 1/2" or less.

Do not attempt to lift heavy objects without proper equipment. Hoisting equipment. Will be made available for lifting heavy objects, with hoist ratings and characteristics appropriate for the task.

Power tools are either battery operated or wired. If battery operated, don't under-estimate their power. A small electric drill or power screwdriver can cause a severe injury if it lands in the wrong place. While not usually a shock hazard, the battery pack contains toxic chemicals and does emit a low voltage electric current. Don't drop or incinerate the battery pack, or a tool with a self-contained power source.

Hard-wired equipment can be portable or fixed. Typically used with extension cords, the more powerful hard-wired equipment presents a double safety problem: the actual equipment plus its electrical power source. Ground-fault circuit interrupters must be provided on all temporary electrical 15 and 20-ampere circuits used during periods of construction. Pneumatic and hydraulic hoses on power-operated tools should be checked regularly for deterioration or damage.

Combustible Materials

All combustible scrap, debris and waste materials (oily rags, etc.) must be stored in covered metal receptacles and removed from the work site promptly. Proper storage to minimize the risk of fire, including spontaneous combustion must be practiced. Only approved containers and tanks are to be used for the storage and handling of flammable and combustible liquid piping, vapor and liquid must be kept tight. All flammable liquids should be kept in closed containers when not in use (e.g., parts-cleaning tanks, pans, etc.).

Bulk drums of flammable liquids must be grounded and bonded to containers during dispensing. Storage rooms for flammable and combustible liquids must have explosion-proof lights. Storage rooms for flammable and combustible liquids should have mechanical or 'gravity ventilation. Liquefied petroleum gas must be stored, handled and used in accordance with safe practices and standards.

No smoking signs must be posted on liquefied petroleum gas tanks. Liquefied petroleum storage tanks should be guarded to prevent damage from vehicles. All solvent wastes and flammable

liquids should be kept in fire-resistant, covered containers until they are removed from the work site.

Vacuuming should be used whenever possible rather than blowing or sweeping combustible dust. Fire separators should be placed between containers of combustibles or flammables when stacked one upon another to assure their support and stability. Distance, fire resistant barriers, etc must separate fuel gas cylinders and oxygen cylinders, while in storage. Fire extinguishers are selected for the types of materials and placed in areas where they are to be used. These fire extinguishers are classified as follows:

Class A - Ordinary combustible materials fires.

Class B - Flammable liquid, gas or grease fires.

Class C - Energized-electrical equipment fires.

Appropriate fire extinguishers must be mounted within 75 feet of outside areas containing flammable liquids, and within 10 feet of any inside storage area for such materials. All extinguishers must be serviced, maintained and tagged at intervals not to exceed one year. Extinguishers should be placed free from obstructions or blockage. All extinguishers must be fully charged and in their designated places unless in use.

Where sprinkler systems are permanently installed, are the nozzle heads arranged so that water will not be sprayed into operating electrical switchboards and equipment? Check to see that heads have not been bent or twisted from their original position.

"NO SMOKING" rules will be enforced in areas involving storage and use of hazardous materials. "NO SMOKING" signs have been posted where appropriate in areas where flammable or combustible materials are used and/or stored. Safety cans must be used for dispensing flammable or combustible liquids at point of use. All spills of flammable or combustible liquids must be cleaned up promptly.

Storage tanks should be adequately vented to prevent the development of excessive vacuum or pressure as a result of filling, emptying or atmosphere temperature changes. Storage tanks are equipped with emergency venting that will relieve excessive internal pressure caused by fire exposure First.

First aid kits and required contents are maintained in a serviceable condition. Unit type kits have all items in the first aid kit individually wrapped, sealed and packaged in comparable sized packages. The commercial or cabinet type kits do not require all items to be individually wrapped and sealed, but only those, which, must be kept sterile. Items such as scissors, tweezers, tubes of ointments with caps, or rolls of adhesive tape, need not be individually wrapped, sealed or disposed of after a single use or application. Individual packaging and sealing shall be

required only for those items, which must be kept sterile in a first aid kit.

What to do if you are injured on the job:

1. Notify your supervisor immediately! If for some reason, your supervisor is not on the jobsite, call the office at 789-4800.
2. Your supervisor will assess the injury and direct you to proper treatment (i.e. first aid, medical facility, etc.).
3. Your supervisor will complete an Accident Report and submit it to the office.

