

COMPANY

HEALTH AND SAFETY

MANUAL

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Table of Contents

	Page
Chapter 1 Injury and Illness Prevention Program	1
1.1 Written Plan	1
1.2 Introduction to Our Program	1
1.3 Safety First Priority	1
1.4 Individual Cooperation Necessary	2
1.5 Safety Program Goals	2
1.6 Safety Policy Statement	2
1.7 Safety Rules for All Employees	3
1.8 Responsible Safety Officer	4
1.8.1 Designated	4
1.8.2 Duties	5
1.9 Employee Compliance	5
1.10 Agreement to Participate	6
1.11 Accident Free Workplace	6
1.12 Employee Safety Suggestion Box	6
1.13 Training	6
1.13.1 Safety and Health Training	7
1.13.2 Periodic Safety Training Meetings	7
1.13.3 Employee Responsibility for Training	8
1.14 Communication	9
1.15 Accident Prevention Policy Posting	9
1.16 Hazard Identification & Abatement	10
1.16.1 Safety Audits	10
1.16.2 Workplace Inspections	11
1.16.3 Accident Investigations	11
1.17 Records	12
1.17.1 OSHA Records Required	12
1.18 General Statement on Safety	13
1.19 Safety Equipment	13
1.20 Protective Clothing	14
1.21 Smoking and Fire Safety	14
1.22 Reporting	14
Chapter 2 General Code of Safe Work Practices	15
2.1 General Fire Safety	15
2.2 Powder Actuated Tools	15
2.3 Machine Guarding	16
2.4 Lockout-Blockout Procedures	17
2.5 Welding Cutting and Brazing	18
2.6 Compressors and Compressed Air	19
2.7 Compressed Gas and Cylinders	19

Table of Contents (continued)

	Page	
2.8	Hoists and Auxiliary Equipment	20
2.9	Industrial Trucks-Forklifts	21
2.10	Confined Spaces	22
2.11	Environmental Controls	22
2.12	Hazardous Chemical Exposures	24
2.13	Hazardous Substances Communication	25
2.14	Electrical	25
2.15	Noise	27
2.16	Fueling	28
2.17	Piping Systems	28
2.18	Material Handling	28
2.19	Transporting Employees and Materials	29
2.20	Ventilation	30
2.21	Ergonomics	30
2.22	Crane Checklist	30
2.23	Safety Posters	31
2.24	Licenses and Permits	32
2.25	Personal Protective Equipment Clothing	32
2.26	Hardhats	33
2.27	Work Environment, General	33
	2.27.1 Walkways	34
	2.27.2 Floor and Wall Openings	35
	2.27.3 Work Area, General	35
2.28	Driving	35
2.29	Vehicle Maintenance	36
2.30	Cleanliness	36
2.31	Tool Maintenance	37
2.32	Ladders	37
2.33	Portable Power Tools	38
2.34	Combustible Materials	39
2.35	Mechanical Lockout-Tagout	40
2.36	First Aid Kits	43

Chapter 1

Injury and Illness Prevention Program

1.1 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 work place, 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.

1.2 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 Subsurface Construction Company 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.

1.3 Introduction to Our Program

The personal safety and health of each employee of Subsurface Construction Company 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.

1.4 Introduction to Our Program

Subsurface Construction Company maintains a safety and 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.

1.5 Safety Program Goals

The objective of Subsurface Construction Company 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.

1.6 Safety Policy Statement

It is the policy of Subsurface Construction Company that accident prevention shall be considered of primary importance in all phases of operation and administration. It is the intention of Subsurface Construction Company'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.

1.7 Safety Rules for All Employees

It is the policy of Subsurface Construction Company 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 accidents. 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, and, if corrective action is not taken immediately, a governmental authority with proper jurisdiction over such practices.
2. Jeffrey Coonse shall be responsible for implementing these policies by insisting that employees observe and obey all rules and regulations necessary to maintain a safe work place 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) will be worn whenever needed.
5. All employees will participate in a safety meeting conducted by their supervisor once every ten working days.
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. There will be no consumption of liquor or beer on the job.
11. Employees should be alert to see that all guards and other protective devices are in proper places and adjusted, and shall report any deficiencies promptly to Kelly Williams and Jeffrey Coonse.
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 Terry Sullivan and Jeffrey Coonse 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.

1.8 Responsible Safety Officer

The identity of the person who is responsible for the Subsurface Construction Company safety program is Jeffrey Coonse. This person must be someone of sufficient authority to implement the program. In addition to other titles, this person is called the Responsible Safety Officer.

1.8.1 Designated

In accordance with Subsurface Construction Company's safety and injury prevention program, Jeffrey Coonse has been designated as the Responsible Safety Officer, and has responsibility and authority to do the following in the name of Subsurface Construction Company:

1. Develop and implement rules of safe practices for each function within the company.
2. Develop and implement safe operating rules for use of electrical and mechanical equipment consistent with manufacturer's recommendations and specifications.
3. Develop and implement a system to encourage employees to report unsafe conditions immediately.
4. Conduct a thorough investigation of each accident, whether or not it results in an injury, to determine the cause of the accident and to prevent recurrence. In cases of a known injury accident, the investigation shall proceed only after consultation with Subsurface Construction Company attorneys, who shall direct the investigation (the product of which investigation shall be considered the work product of the attorney).
5. Instruct supervisors in safety responsibilities.
6. Develop and implement a program of employee safety education.
7. Conduct scheduled and unscheduled inspections to identify and correct unsafe working conditions. Special attention shall be given to notice of serious concealed dangers.
8. Maintain records of training, periodic inspections, corrective actions and investigations as required by law.

The Responsible Safety Officer for Subsurface Construction Company is Jeffrey Coonse. Subsurface Construction Company will inform every person of the name of the Responsible Safety Officer and post his or her name and telephone/office number on the bulletin board where all other safety information is routinely maintained.

1.8.2 Duties

Overall responsibility and authority for implementing the injury and illness prevention program is vested in Jeffrey Coonse, the Responsible Safety Officer. Management fully supports the Responsible Safety Officer. As part of the job, the Responsible Safety Officer will supplement this written injury and illness prevention program by: establishing workplace objectives and safety recognition programs; working with all

government officials in both accident investigation and safety inspection procedures; maintaining safety and individual training records; encouraging reporting of unsafe conditions and promoting a safe workplace. Some of these responsibilities will be delegated to your immediate supervisor for implementation.

1.9 Employee Compliance

This written plan contains incentives designed to promote employee participation in the safety program. These incentives are not part of your regular compensation and are not intended to discourage you from reporting accidents.

1.10 Agreement to Participate

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

The information in this manual constitutes a written injury and illness prevention program. While Subsurface Construction Company 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 Jeffrey Coonse. 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 acknowledgement 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.

1.11 Accident Free Workplace

To help us all meet our goal of an accident free workplace, we may from time to time offer prizes for accident-free work. Notices will be posted on the Company bulletin board.

1.12 Employee Safety Suggestion Box

From time to time, Subsurface Construction Company will award a prize for the best safety suggestion. To be eligible, please give your written safety suggestions to your supervisor during the safety meetings. All these safety suggestions will be discussed at the meeting. The supervisor whose employee wins the best safety suggestion will also be

given a prize. The group that consistently has the best safety suggestions will also be recognized. Management is the sole judge of the value of safety suggestions, and will implement as many of the good suggestions as possible.

1.13 Training

Employee safety training is another requirement of an effective injury and illness prevention program. While Subsurface Construction Company believes in skills training, we also want to emphasize safety training. 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.

1.13.1 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 Subsurface Construction Company'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 case 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 Subsurface Construction Company'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.

1.13.2 Periodic Safety Training Meetings

Subsurface Construction Company has safety meetings every Friday morning. 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 work site hazards, serious concealed dangers, and material safety data sheets. Each week, Jeffrey Coonse 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 meeting notes file. Employee attendance is mandatory and is compensable unless part of an official state approved training program or pre-employment requirement.

1.13.3 Employee Responsibility for Training

Teaching safety is a two-way street. Subsurface Construction Company can preach safety, but only employees can practice safety. Safety education requires employee participation.

Every Friday morning, a meeting of all 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. All such equipment must be properly maintained.

1.14 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. Subsurface Construction Company 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.

1.15 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:

- Incorporate safety into every job procedure. No job is done efficiently unless it has been done safely.
- Know and obey safe practice rules.
- Know that disciplinary action may result from a violation of the safety rules.
- Report all injuries immediately, no matter how slight the injury may be.
- Caution fellow workers when they perform unsafe acts.
- Don't take chances.
- Ask questions when there is any doubt concerning safety.
- Don't tamper with anything you do not understand.
- Report all unsafe conditions or equipment to your supervisor immediately.

1.16 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.

1.16.1 Safety Audits

The best method to establish a safer workplace is to study past accidents and worker compensation complaints. By focusing on past injuries, Subsurface Construction Company 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 interview. 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 suggestion 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 guest 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 an injury to yourself and others.

Manager must provide written notice to employees of 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 any injuries.

1.16.2 Workplace Inspections

In addition to the examination of records, work place safety inspections will occur periodically every 3 months, 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 Subsurface Construction Company code of safe work practices.

1.16.3 Accident Investigation

A primary tool used by Subsurface Construction Company 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 Subsurface Construction Company'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.

Every job location will have on site at least one camera, preferably either a video or a sixty-second type, with enough film to take pictures immediately after any occurrence. Some workplaces will have a video camera.

A written report should be prepared from notes and diagrams made at the scene, or a portable Dictaphone will be used to record direct eyewitness statements as near to the actual time of observation as possible. All statements should include the time and date given, and the town or county where the statement was made. If the statement is intended to be used in court proceedings, a suitable jurat is required, otherwise, 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. Let people know on tape that they are being recorded. 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:

1. 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.
2. 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.
3. 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.
4. 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 accident has been reduced.

1.17 Records

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

1.17.1 OSHA Records Required

Copies of required accident investigations and certification of employee safety training shall 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 1, for one month, until March 1, on OSHA Form 200. These records are maintained for five years from the date of preparation.

1.18 General Statement on Safety

Each employee has an individual responsibility to prevent accidents. It is to the benefit of all employees and Subsurface Construction Company that you report any situation or condition you believe may present a safety hazard, including any known or concealed dangers in your work area. Subsurface Construction Company 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.

1.19 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.

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 to 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.

Hearing protection appliances (approved muffs or plugs) shall be worn by all employees working within any area identified as having excess noise levels. Your supervisor will instruct you in the proper use of the appliance.

1.20 Protective Clothing

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

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

1.21 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 help prevent fires by observing the smoking rules:

- Smoking is not allowed on the site, except in designated areas.
- Smoking is not permitted in rest rooms.
- If you are not sure about where you may smoke, ask the supervisor.

1.22 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 at the work site.

Chapter 2

General Code of Safe Work Practices

2.1 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. Metal guards should protect sprinkler heads 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.

2.2 Powder Actuated Tools

The employees using powder-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 machines.

2.3 Machine Guarding

Before operating any machine, every employee must have completed a training program on safe methods of machine operations. It is the primary purpose of supervision to ensure that employees are following safe machine operating procedures. There will be a regular program of 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, to 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 of 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 bonded and 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 pulleys and belts which are within 7-feet of the floor or working level are properly guarded. All moving chains and gears must be 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 placing and removing material must protect the operator's hands. All revolving drums, barrels and containers should be guarded by an enclosure that is interlocked with the drive mechanisms, so that revolution cannot occur unless the guard enclosure is in place. All arbors and mandrels must have firm and secure bearing and be free of play. A protective mechanism has been installed to prevent machines from automatically starting when power is restored after a power 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

should be protected by a guard having openings no larger than ½-inch when operating within 7-feet of the floor.

Saws used for ripping equipment must be installed with anti-kickback devices and spreaders. All radial arms saws must be arranged so that the cutting head will gently return to the back of the table when released.

2.4 Lockout-Blockout Procedures

All machinery or equipment capable of movement must be de-energized or disengaged and blocked or locked out during cleaning, servicing, adjusting or setting up operations, whenever required. The locking-out of the control circuits in lieu of locking-out main power disconnects is prohibited. All equipment control valve handles must be provided with a means for locking out. The lock-out procedure requires that stored energy (i.e. mechanical, hydraulic, air) be released or blocked before equipment is locked out for repairs.

Appropriate employees are provided with individually keyed personal safety locks. Employees are required to keep personal control of their key(s) while they have safety locks in use. Employees must check the safety of the lockout by attempting a start up after making sure no one is exposed.

Where the power disconnect does not also disconnect the electrical control circuit, the appropriate electrical enclosures must be identified. The control circuit can also be disconnected and locked out.

2.5 Welding, Cutting and Brazing

Only authorized and trained personnel are permitted to use welding, cutting or brazing equipment. All operators must have a copy of the appropriate operating instructions and are directed to follow them.

Compressed gas cylinders should be regularly examined for obvious signs of defects, deep rusting, or leakage. Use care in handling and storing cylinders, safety valves, relief valves and the like, to prevent damage. Precaution must be taken to prevent mixture of air or oxygen with flammable gases, except at a burner or in a standard torch. Only approved apparatus (torches, regulators, pressure-reducing valves, acetylene generators, manifolds) may be used.

Cylinders must be kept away from sources of heat. It is prohibited to use cylinders as rollers or supports. Empty cylinders must be appropriately marked, their valves closed and valve-protection caps on.

Signs reading: DANGER – NO SMOKING, MATCHES, OR OPEN LIGHTS, or equivalent must be posted. Cylinders, cylinder valves, couplings, regulators, hoses and

apparatus must be kept free of oily or greasy substances. Care must be taken not to drop or strike cylinders.

Unless secured on special trucks, all regulators must be removed and valve-protection caps put in place before moving cylinders. All cylinders without fixed hand wheels must have keys, handles, or non-adjustable wrenches on stem valves when in service. Liquefied gases must be stored and shipped valve-end up with valve covers in place. Before a regulator is removed, the valve must be closed and gas released from the regulator. All employees are instructed never to crack a fuel-gas cylinder valve near sources of ignition. Red is used to identify the acetylene (and other fuel-gas) hose, green for oxygen hose, and black for inert gas and air hose. All pressure-reducing regulators must be used only for the gas and pressures for which they are intended.

The open circuit (No Load) voltage of arc welding and cutting machines must be as low as possible and not in excess of the recommended limits. Under wet conditions, automatic controls for reducing no-load voltage must be used. Grounding of the machine frame and safety ground connections of portable machines must be checked periodically. Electrodes must be removed from the holders when not in use. All electric power to the welder must be shut off when no one is in attendance.

Suitable fire extinguishing equipment must be available for immediate use before starting to ignite the welding torch. The welder is strictly forbidden to coil or loop welding electrode cable around his/her body.

All wet welding machines must be thoroughly dried and tested before being used. All work and electrode lead cables must be frequently inspected for wear and damage, and replaced when needed. All connecting cable lengths must have adequate insulation. When the object to be welded cannot be moved and fire hazards cannot be removed, shields must be used to confine heat, sparks and slag.

Fire watchers will be assigned when welding or cutting is performed in locations where a serious fire might develop. All combustible floors must be kept wet, covered by damp sand, or protected by fire-resistant shields. When floors are wet down, personnel should be protected from possible electrical shock.

When welding is done on metal walls, precautions must be taken to protect combustibles on the other side. Before hot work is begun, used drums, barrels, tanks and other containers must be so thoroughly cleaned that no substances remain that could explode, ignite or produce toxic vapors. It is required that eye protection helmets, hand shields and goggles meet appropriate standards.

Employees exposed to the hazard created by welding, cutting or brazing operations must be protected with personal protective equipment and clothing. Check for adequate ventilation where welding or cutting is performed. When working in confined spaces, environmental monitoring tests should be taken and means provided for quick removal of welders in case of emergency.

2.6 Compressors and Compressed Air

All compressors must be equipped with pressure relief valves and pressure gauges. All compressor air intakes must be installed and equipped to ensure that only clean, uncontaminated air enters the compressor. Every air receiver must be provided with a drainpipe and valve at the lowest point for the removal of accumulated oil and water. Compressed air receivers must be periodically drained of moisture and oil. All safety valves shall be tested frequently and at regular intervals to determine whether they are in good operating condition. A current operating permit issued by the Division of Occupational Safety and Health shall be maintained. The inlet of air receivers and piping systems must be kept free of accumulated oil and carbonaceous materials.

2.7 Compressed Gas and Cylinders

Cylinders with a water weight capacity over 30 pounds must be equipped with means for connecting a valve protector device, or with a collar or recess to protect the valve. Cylinders must be legibly marked to identify clearly the gas contained. Compressed gas cylinders should be stored only in areas, which are protected from external heat sources such as flame impingement, intense radiant heat, electric arcs or high temperature lines. Cylinders must not be located or stored in areas where they will be damaged by passing or falling objects, or subject to tampering by unauthorized persons.

Cylinders must be stored or transported in a manner to prevent them from creating a hazard by tipping, falling or rolling. All cylinders containing liquefied fuel gas must be stored or transported in a position so that the safety relief device is always in direct contact with the vapor space in the cylinder. Valve protectors must always be placed on cylinders when the cylinders are not in use or connected for use. All valves must be closed off before a cylinder is moved, when the cylinder is empty, and at the completion of each job.

Low pressure fuel-gas cylinders must be checked periodically for corrosion, general distortion, cracks, or any other defect that might indicate a weakness or render them unfit for service. The periodic check of low-pressure fuel-gas cylinders includes a close inspection of the cylinder's bottom.

2.8 Hoists and Auxiliary Equipment

Every overhead electrical hoist shall be equipped with a limit device to stop the hook travel at its highest and lowest points of safe travel. Check these limits without a load to ensure the device is working correctly. Each hoist should automatically stop and hold any load up to 125 percent of its rated load if its actuating force is removed. Check this periodically under controlled conditions. Make sure that the rated load of each hoist is legibly marked and visible to the operator. Stops should be provided at the safe limits of travel for trolley hoists.

The controls of hoists should be plainly marked to indicate direction of travel or motion. Every cage-controlled hoist must be equipped with an effective warning device. Close-fitting guards or other suitable devices should be installed on hoists to assure hoist ropes will be maintained in the sheave grooves.

All hoist chains or ropes must be of sufficient length to handle the full range of movement for the application, while maintaining two full wraps on the drum at all times. All nip points or contact points between hoist ropes and sheaves which are permanently located within 7-feet of the floor, ground or working platform must be guarded. It is prohibited to use chains or rope slings that are kinked or twisted.

The operator should avoid carrying loads over people. Only employees who have been trained in the proper use of hoists are allowed to operate them.

2.9 Industrial Trucks-Forklifts

Only trained personnel should be allowed to operate industrial trucks. Lift Truck Operating rules must be posted and will be strictly enforced.

When operating any industrial truck, substantial overhead protective equipment will be provided on high lift rider equipment. Directional lighting is also provided on each industrial truck that operates in an area with less than 2-foot candles per square foot of general lighting.

Each industrial truck must have a warning horn, whistle, gong or other device which can be clearly heard above the normal noise in the area where operated. Before using a forklift, check that the brakes on each industrial truck are capable of bringing the vehicle to a complete and safe stop when fully loaded. The parking brake must effectively prevent the vehicle from moving when unattended. When motorized hand and hand/rider truck are operated, and when the operator releases the steering mechanism, make sure that both the brakes are applied and power to the motor shut off. Maintenance records are available so that a driver can check on the servicing of the truck in case of questions.

When an industrial truck operates in areas where flammable gases, vapors, combustible dust, or ignitable fibers may be present in the atmosphere, the vehicle must be approved for such locations with a tag showing such approval posted on the vehicle itself.

Industrial trucks with internal combustion engines, operated in buildings or enclosed areas, should be carefully checked to ensure that the operation of the vehicle does not cause harmful concentration of dangerous gases or fumes.

2.10 Confined Spaces

Before entry into a confined space, all impellers, agitators, or other moving equipment contained in the confined space must be locked-out. Ventilation must be either natural or

mechanically provided into the confined space. All hazardous or corrosive substances that contain inert, toxic, flammable or corrosive materials must be valved off, blanked, disconnected and separated. Atmospheric tests should be performed to check for oxygen content, toxicity and explosive concentration. Atmospheric tests must be performed on a regular basis in a confined area where entry is required. The area must also be checked for decaying vegetation or animal matter that could produce methane. Adequate lighting must be provided within the space. If the confined area is located below the ground or near where motor vehicles are operating, care must be taken that vehicle exhaust or carbon monoxide does not enter the space.

When personnel enter a confined area, assigned safety standby employees who are alert to the work being done, are able to sound an alarm if necessary and to render assistance, must be in the area. These standby employees must be trained to assist in handling lifelines, respiratory equipment, CPR, first aid, and be able to employ rescue equipment that will remove the individual from the confined area. Standby personnel should be teams of two during such an operation or else within the vicinity if working separately. There must also be an effective communication system utilized while the operation is occurring.

When equipment which utilizes oxygen, such as salamanders, torches or furnaces, is used in a confined space, adequate ventilation must be provided to guarantee oxygen content and combustion for the equipment. When this equipment is used, adequate measures must be taken to assure that exhaust gases are vented outside the enclosure. When gas welding or burning is used, hoses must be checked for leaks. Compressed bottled gas must be outside the area and torches must be lit outside the area also. The atmosphere must be tested each time before lighting a torch.

2.11 Environmental Controls

All employees must be aware of the hazards involved when working with chemicals and the remedies that need to be used when an accident does occur. A training program will give instructions on how to handle the chemical being used and first aid to be applied to victims of chemical exposure. First aid and caution signs will be conspicuously posted so as to alert individuals on a constant basis. Charts identifying the chemicals utilized in the workplace, their symptoms and effects must also be posted. The workers must know what the acceptable level of exposure to a chemical is and what safety systems must be in place when working with a chemical. Staff should also be aware of new chemical products which may be available that are less harmful, and they must ensure that facilities are adequately ventilated when using chemicals on the premises.

Spray-painting operations done in spray rooms or booths must be equipped with an appropriate exhaust system. Periodic inspections must be made of the booth and noted on an inspection tag posted on the booth.

If welding is done, the welder should be certified. In the area of operation where the welding is taking place, the welder must be aware of ventilation available, the type of

respirator that can be used in the area, and if exposure time or other means will suffice as a safe and adequate measure when welding as to the fumes that will be emitted. Welders should also be supplied with protective clothing and a flash shield during welding operations.

When forklifts and other vehicles are used in buildings or other enclosed areas, carbon monoxide levels must be kept below maximum acceptable concentration.

Noise levels also present a potential hazard. Noise levels within a facility must be at acceptable levels and if not, steps must be taken to reduce the level using recommended engineering controls.

When fibrous materials such as asbestos are being handled, the necessary precautions must be taken to protect the employee from the material. The material must be labeled; along with signs conspicuously posted that these materials are being used in the area. Employees should be aware of effective methods used to prevent emission of airborne asbestos fibers, silica dust and other similar hazardous materials. Some of the recommended methods of controlling the emission of these materials are by using water and vacuuming, rather than blowing and sweeping, the materials.

Machinery such as grinders, saws and other tools that produce a fine airborne dust must be vented to an industrial collector or central exhaust system. In any ventilation system the system should be designed and operated at an airflow and volume necessary for proper application and effectiveness. In the design of the ventilation system the ducts and belts must be free of obstructions and slippage.

As with all operations, there must be written standards on the procedures for the equipment, description of the job task, usage of the protective equipment provided, such as the selection and use of respirators, and when they are needed.

Any water that is provided to an employee throughout the facility should be clearly identified as to whether it is for drinking, washing or cooking. All restrooms must be kept clean and sanitary.

Employees should be screened before taking positions that may expose them to hazards they are not physically capable of handling. An employee who takes an assignment which requires physical labor must be trained to lift heavy loads properly so as not to damage themselves physically. If the work assignment involves dealing with equipment that produces ultra-violet radiation, the employee must be properly protected or given the correct protective clothing. An employee posted to an assignment on a roadway where there is heavy traffic must be given the designated protective clothing (bright colored traffic orange warning vest) and safety training regarding the hazards of this job.

2.12 Hazardous Chemical Exposures

In any company, which utilizes chemical substances, a training program on the handling, hazards, storage, exposure risks, symptoms of chemical exposure, and first aid needs to be part of any new employee's training. There must also be follow-up training sessions as to any new chemical or processes that may be initiated by the company. Follow-up training sessions act as a reinforcement of safety standards that need to be followed on a daily basis.

In a training program, employees will learn acceptable levels of chemical exposure, proper storage and labeling of chemicals, and usage of protective clothing and equipment for handling chemicals. They will also learn about potential fire and toxicity hazards, when not to have a chemical in a confined area, or to store in closed containers, usage of eye wash fountains and safety showers, and the necessary posting of open, and dangerous areas. It is important that an employee recognize the Threshold Limit Values or Permissible Exposure Limits of airborne contaminants and physical agents in the workplace.

A procedural manual or set of instructions must be part of the program, with periodic inspections that clearly indicate whether an employee may be mishandling a chemical or endangering himself or others. Part of the manual or procedures must establish a standard of when and how to deal with chemical spills, neutralizing, and disposing of spills or overflows.

These procedures must also be posted in an area that is easily accessible for reference usage.

First aid training and equipment will be routine in any facility where chemicals are used. Employees must know how to handle equipment in emergency situations, what equipment needs to be used and whether the equipment is adequate for the situation.

Respirators may be used either as protective safety equipment or for emergency usage. Therefore, the employee should recognize that respirators need to be stored in a clean, sanitary and convenient location and inspected on a regular basis. Also what respirators are approved by NIOSH for their particular applications. With a first aid program an employee will recognize when a problem may be occurring by exposure to a chemical ranging from headaches, nausea, and dermatitis problems to other factors of discomfort when they use solvents or chemicals.

In the design of a facility that transports chemicals from storage to vats, the content of pipes and storage containers must be clearly marked. Within that facility design there must be an emergency shut off system in case of accident. Each employee will be trained as to these emergency shut-off systems.

Ventilation is another major factor in the design of any facility. Whether by natural means or mechanical, the system must be designed to control dust, fumes, solvents, gases, smoke or vapors which may be generated in the workplace. It is also important

that a medical or biological monitoring system be in operation as part of the safety standards. If internal combustion engines are used in the facility, or if there is a chance of leakage or mixture with a chemical that could create a toxic gas, atmospheric gas levels must be monitored. If toxic chemicals are used and stored in the facility they should be located in an isolated area to guarantee safety.

2.13 Hazardous Substances Communication

When hazardous substances are used in the workplace, a hazard communication program dealing with Material Safety Data Sheets (MSDS), labeling and employee training will be in operation. MSDS materials will be readily available for each hazardous substance used. A training program plus regular question and answer sessions on dealing with hazardous materials will be given to keep employees informed.

The program will include an explanation of what an MSDS is and how to use and obtain one; MSDS contents for each hazardous substance or class of substances; explanation of the “Right to Know”; identification of where employees can see the employer’s written hazard communication program and where hazardous substances are present in their work area; the health hazards of substances in the work area, how to detect their presence, and specific protective measures to be used; as well as informing them of hazards of non-routine tasks and unlabeled pipes.

2.14 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 appliance 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 taps.
- 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 otherwise 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, and 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 rated 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 in 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.

2.15 Noise

Noise levels are measured using a sound level meter or an octave bank analyzer and records kept. Engineering controls will be used to reduce excessive noise levels. When engineering controls are not feasible, administrative controls (i.e. worker rotation) will be used to minimize individual employee exposure to noise. An ongoing preventive health program will be utilized to educate employees in safe levels of noise, exposure, effects of noise on their health, and use of personal protection. Approved hearing protective equipment (noise attenuating devices) will be available to every employee working in areas where continuous noise levels exceed 85dB. To be effective, ear protectors must be properly fitted and employees will be instructed in their use and care.

2.16 Fueling

Where flammable liquids are used, employees will be trained to deal with spillage during fueling operations, how it is to be cleaned, the types and designs of fueling hoses and the specific types of fuel it can handle, whether fueling is being done with a nozzle that is a gravity flow system or self-closing, how to avoid spills and recognition that if a spill does occur, the safety of restarting an engine.

Employees must be aware that an open flame or light near any fuel is prohibited when fueling or the transfer of fuel is occurring. “NO SMOKING” signs will be posted conspicuously.

2.17 Piping Systems

Substances that are transported through piping need to be identified by color or labeling. Signs must be posted identifying the substance being transported through the pipes as to whether it is hazardous and where turn-off valves, connections and outlets are located. All tags used for labeling will be of a durable material with distinguishable and clearly written print.

When non-potable water is piped through a facility, outlets or taps, notices will be posted to alert employees that it is unsafe and not to be used for drinking, washing or personal use. When pipelines are heated by electricity, steam or other external sources, warning signs or tags placed at unions, valves, or other serviceable parts will be part of the system.

2.18 Material Handling

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

- There must be safe clearance for equipment through aisles and doorways.
- Aisle way 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 dunnage 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 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, chockers 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.

2.19 Transporting Employees and Materials

When employees are transporting either employees or materials, they must have an operator's license for that classification of vehicle and be certified or trained in the operation of that vehicle. For a safety program to be effective they must also have knowledge of First Aid courses and safety equipment, as well as the vehicle and how it operates.

As employees are transported by truck, provisions must be provided to prevent their falling from the vehicle. Vehicles should be in good working condition, inspected on a regular basis and must be equipped with lamps, brakes, horns, mirrors, windshields and

turn signals in good working order. If the vehicle transports numerous individuals it must be equipped with handrails, steps, stirrups or similar devices, placed and arranged so that employees can safely mount or dismount.

Safety measures to ensure passenger safety should be observed. When cutting tools with sharp edges are carried in the passenger compartment, they must be placed in closed boxes or secured containers. Carrying flares and two reflective type flares and a fire extinguisher must be part of the standard emergency equipment carried in the vehicle at all times.

2.20 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.

2.21 Ergonomics

With the introduction of computers into the workplace, new areas of physical debilitation have been recognized. These new potential hazards have required a redesigning of both the workplace and how employees work. A set of standards will be developed and practiced with this new technology.

Furniture will be adjustable, positioned and arranged to minimize strain on all parts of the body. A glare screen to prevent eyestrain will minimize the glare of a computer screen. Repetitive motions can harm back, shoulders, neck, wrists and other parts of the body, so employees will not proceed with a task when they are physically feeling an impairment. Each employee will be entitled to a rest break.

2.22 Crane Checklist

With the operation of cranes there are several functional areas to be considered. Cranes should be inspected on a biannual basis with the inspection certificate available when a question arises. The crane must be utilized in an operation, which does not violate OSHA regulations. Cranes will be visually inspected for defective components prior to any work shift. Electrically operated cranes will be effectively grounded, preventive maintenance established, have a clearly visible load; operating controls clearly identified; a fire extinguisher provided at the operator's station; rated capacity visibly marked; an audible warning device mounted on the crane, and sufficient illumination. Crane design shall be such that the boom will not fall over backwards when equipped with boom stops.

2.23 Safety Posters

Subsurface Construction Company is required to post certain employment related information. The required information is maintained at 1107 Fuller Street, Raleigh, North Carolina where employees can find the following required posters:

- Various state and federal orders regulating the Wages, Hours and Working Conditions in certain industries
- Pay Day Notice
- Anti-Discrimination Poster
- Equal Employment Opportunity is the Law (EEOC form)
- OSHA Safety and Health Protection on the Job
- Notice of Workers Compensation Carrier
- Notice to Employees: Unemployment Insurance and Disability Insurance
- Notice: Employee Polygraph Protection Act (form WH 1462)
- Access to Medical and Exposure Records
- Notice to Employees: Time Off to Vote

In addition to the above listed notices, a copy of this injury prevention program, a log and summary of Occupational Injuries and Illnesses, a copy of Subsurface Construction Company's code of Safe Work Practices and a Fire Prevention and Evacuation Plan will be posted.

Material Data Safety Sheets for Subsurface Construction Company's premises are available on the bulletin board. When employees are required to work on the premises of any other employer, such as a service call or installation situation, the job site will maintain a collection of Material Data Safety Sheets that describe any hazards unique to that site. Check with the other employer's job site coordinator for the exact location of the MSDS information.

In addition to these required safety postings, emergency numbers are maintained in the office.

In most cases of real emergency call 911. State your name, the nature of the emergency, and exact location of the injury. Answer all questions completely. No NOT use 911 for routine calls to the police or fire departments.

2.24 Licenses and Permits

In addition to other postings required by law, Subsurface Construction Company 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 at 1107 Fuller Street, Raleigh, North Carolina.

2.25 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 Subsurface Construction Company.
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 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 chemicals.
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 is any risk of foot injuries from hot, corrosive, poisonous substances, falling objects, and crushing or penetrating action.
7. When necessary employees must use the approved respirators, which are provided for regular and emergency use.
8. All safety equipment must be maintained in sanitary condition and ready for use. Report any defective equipment immediately.
9. An eye wash facility is located in the restroom. If any irritant gets into an employee's eyes, call for medical assistance immediately and flush the eye out with clean water.
10. As of 12/26/1995 a shower does not exist. However, should the nature of future work require such a facility, one will be provided.
11. Food may not be eaten in work areas, or in places where there is any danger or exposure to toxic materials or other health hazards. Ask your supervisor to identify safe eating-places.
12. In cases where the noise level exceeds certain levels, ear protection is required.
13. In cases of cleaning toxic or hazardous materials, protective clothing provided must be worn.

2.26 Hardhats

In Subsurface Construction Company, hardhats are required 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, the value of hardhats 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 that all it takes is a carelessly dropped tool or piece of material coming down on your head to cause severe 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.

2.27 Work Environment, General

The following sections (2.27, 27.1, 27.2 and 27.3) may apply more specifically to a facility that Subsurface Construction Company does not presently own (12/26/1995). However, it is our intention to conduct our field activities in accordance with these guidelines to the extent practical. And, when we work within shops or shared spaces, these guidelines serve as Company policies for all employees.

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 sealable 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.

2.27.1 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 now that they know you are there.

Equipment must be properly stored so that 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.

2.27.2 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 pounds 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 20,000 pounds 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.

2.27.3 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 substance may be consumed prior to or during work.

2.28 Driving

Drive safely. If vehicles are used during the workday, seat belts and shoulder harnesses are to be worn at all times. Vehicles must be locked when unattended to avoid criminal misconduct. Do not exceed the speed limit. Vehicles must be parked in legal spaces and must not obstruct traffic. All employees must practice defensive driving. Employees should park their vehicles in well-lighted areas at/or near entrances to avoid criminal misconduct.

2.29 Vehicle Maintenance

Work safely when repairing vehicles. Where tires are mounted and/or inflated on drop center wheels, a safe practice procedure must be posted and enforced. Where tires are mounted and/or inflated on wheels with split rims and/or retainer rings, a safe practice procedure must be posted and enforced. Each tire inflation hose must have a clip-on chuck with at least 24 inches of hose between the chuck and in-line hand valve and gauge. The tire inflation control valve should automatically shut off the airflow when the valve is released. A tire restraining device such as a cage, rack or other effective means must be used while inflating tires mounted on split rims, or rims using retainer rings.

Employees are strictly forbidden from taking apposition directly over or in front of a tire while it's being inflated. Employees to avoid over-exertion when lifting packages must use proper lifting techniques.

2.30 Cleanliness

All work sites must be clean and orderly. All work surfaces must be kept dry and appropriate means taken to assure that surfaces are slip-resistant. All spill materials or liquids should be cleaned up immediately and combustible scrap, debris and waste stored safely and removed from the work site promptly.

Any accumulations of combustible dust must be routinely removed from elevated surfaces including the overhead structure of buildings. Combustible dust should be cleaned up with a vacuum system to prevent the dust going into suspension. Metallic or conductive dust must be prevented from entering or accumulating on or around electrical enclosures or equipment.

Covered metal waste cans are provided for oily and paint-soaked waste. Use them. All oil and gas fired devices must be equipped with flame failure controls that will prevent flow of fuel if pilots or main burners are not working.

Paint spray booths, dip tanks, etc., must be cleaned regularly. Washing facilities are provided, so wash your hands after handling materials.

2.31 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 and effect. Jacks must be checked periodically to assure they are in good operating condition. Tool handles must be wedged tightly into the head 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.

2.32 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 openings toward the ladder except when the door is blocked open, locked or guarded. It is prohibited to place ladders on boxes, barrels, and 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.

2.33 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 up, 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, chains, 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 ½-inch 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 underestimate their power. A small electric drill or power screw 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 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.

2.34 Combustible Materials

All combustible scarp, 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 liquids. All connections on drums 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.

2.35 Mechanical Lockout-Tagout

Point of operation devices shall protect the operator by:

- Preventing and/or stopping normal stroking of the press if the operator's hands are inadvertently placed in the point of operation; or
- Preventing the operator from inadvertently reaching into the point of operation or withdrawing his/her hands if they are inadvertently located in the point of operation, as the dies close; or
- Preventing the operator from inadvertently reaching into the point of operation at all times; or
- Requiring application of both of the operator's hands to machine operating controls and locating such controls at such a safety distance from the point of operation that the slide completes the downward travel or stops before the operator can reach into the point of operation with his/her hands; or
- Enclosing the point of operation before a press stroke can be initiated and maintaining this closed condition until the motion of the slide had ceased; or
- Enclosing the point of operation before a press stroke can be initiated, so as to prevent an operator from reaching into the point of operation prior to die closure or prior to cessation of slide motion during the downward stroke.

A gate or movable barrier device shall protect the operator.

A presence sensing point of operation device shall protect the operator by interlocking into the control circuit to prevent or stop slide motion if the operator's hand or other part of his/her body is within the sensing field of the device during the downstroke of the press slide.

The device may not be used on machines using full revolution clutches.

The device may not be used as a tripping means to initiate slide motion.

The device shall be constructed so that a failure within the system does not prevent the normal stopping action from being applied to the press when required, but does prevent the initiation of a successive stroke until the failure is corrected. The failure shall be indicated by the system.

Muting (bypassing of the protective function) of such device, during the upstroke of the press slide, is permitted for the purpose of parts ejection, circuit checking, and feeding only.

The safety distance from the sensing field to the point of operation shall be greater than the distance determined by the following formula:

$D_s = 63 \text{ inches/second} \times T_s$ where:

D_s = minimum safety distance (inches);

63 inches/second = hand speed constant; and

T_s = stopping time of the press measured at approximately 90 position of crankshaft rotation (seconds).

Guards shall be used to protect all areas of entry to the point of operation not protected by the presence-sensing device.

The pullout device shall protect the operator and shall include attachments for each of the operator's hands.

Attachments shall be connected to and operated only by the press slide or upper die.

Attachment shall be adjusted to prevent the operator from reaching into the point of operation or to withdraw the operator's hands from the point of operation before the dies close.

A separate pullout device shall be provided for each operator if more than one operator is used on a press.

Each pull-out device in use shall be visually inspected and checked for proper adjustment at the start of each operator shift, following a new die set-up, and when operators are changed. Necessary maintenance or repair or both shall be performed and completed before the press is operated. The sweep device shall protect the operator as specified in this subsection, by removing his/her hands safely to a safe position if they are inadvertently located in the point of operation, as the dies close or prior to tripping the clutch. Devices operating in this manner shall have a barrier, attached to the sweep arm in such a manner as to prevent the operator from reaching into the point of operation, past the trailing edge of the sweep arm on the downward stroke of the press. This device may not be used for point of operation safeguarding.

The sweep device must be activated by the slide or by motion of a foot pedal trip rod.

The sweep device must be designed, installed and operated so as to prevent the operator from reaching into the point of operation before the dies close.

The sweep device must be installed so that it will not itself create an impact or shear hazard between the sweep arm and the press tie rods, dies, or any other part of the press or barrier.

Partial enclosure conforming with this subsection, as to the area of entry which they protect, must be provided on both sides of the point of operation to prevent the operator from reaching around or behind the sweep device and into the point of operation after the dies start to close. Partial enclosures shall not themselves create a pinch point or shear hazard.

A holdout or a restraint device shall protect the operator and shall include attachments for each of the operator's hands. Such attachments shall be securely anchored and adjusted in such a way that the operator is restrained from reaching into the point of operation. A separate set of restraints shall be provided for each operator if more than one operator is required on a press.

The two hand control device shall protect the operator.

When used in press operations requiring more than one operator, separate two hand controls shall be provided for each operator, and shall be designed to require concurrent application of all operators' controls to activate the slide. The removal of a hand from any control button shall cause the slide to stop.

The safety distance between each two hand control device and the point of operation shall be greater than the distance determined by the following formula:

$D_s = 63 \text{ inches/second} \times T_s$, where:

D_s = minimum safety distance (inches);

63 inches/second = hand speed constant; and

T_s = stopping time of the press measured at approximately 90 position of crankshaft rotation (seconds).

2.36 First Aid Kits

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 required 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.

First aid kits shall contain at least the following items:

10-Package Kit:

- | | |
|--------|---|
| 1-Pkg. | Adhesive bandages, 1" (16-per pkg.) |
| 1-Pkg. | Bandage compress, 4" (1-per pkg.) |
| 1-Pkg. | Scissors* and tweezers (1-ea. Per pkg.) |
| 1-Pkg. | Triangular bandage, 40" (1-per pkg.) |

- 1-Pkg. Antiseptic soap or pads (3-per pkg.)
- 5-Pkgs. of consulting physician's choice

16-Package Kit:

- 1-Pkg. Absorbent gauze, 24" x 72" (1-per pkg.)
- 1-Pkg. Adhesive bandages, 1" (16-per pkg.)
- 2-Pkgs. Bandage compresses, 4" (1-per pkg.)
- 1-Pkg. Eye dressing (1-per pkg.)
- 1-Pkg. Scissors* and tweezers (1-ea. Per pkg.)
- 2-Pkgs. Triangular bandages, 40" (1-per pkg.)
- 1-Pkg. Antiseptic soap or pads (3-per pkg.)
- 7-Pkgs. of consulting physician's choice

24-Package Kit:

- 2-Pkgs. Absorbent gauze, 24" x 72" (1-per pkg.)
- 2-Pkgs. Adhesive bandages, 1" (16-per pkg.)
- 2-Pkgs. Bandage compresses, 4" (1-per pkg.)
- 1-Pkg. Eye dressing (1-per pkg.)
- 1-Pkg. Scissors* and tweezers (1-ea. Per pkg.)
- 6-Pkgs. Triangular bandages (1-per pkg.)
- 1-Pkg. Antiseptic soap or pads (3-per pkg.)
- 9-Pkgs. of consulting physician's choice

36-Package Kit:

- 4-Pkgs. Absorbent gauze, 24" x 72" (1-per pkg.)
- 2-Pkgs. Adhesive bandages, 1" (16-per pkg.)
- 5-Pkgs. Bandage compresses, 4" (1-per pkg.)
- 2-Pkg. Eye dressing (1-per pkg.)
- 1-Pkg. Scissors* and tweezers (1-ea. Per pkg.)
- 8-Pkgs. Triangular bandages (1-per pkg.)
- 1-Pkg. Antiseptic soap or pads (3-per pkg.)
- 13-Pkgs. of consulting physician's choice

*Scissors shall be capable of cutting 2 layers of 15-oz. Cotton cloth or its equivalent. The first-aid kits are maintained at the ten, sixteen, twenty-four or thirty-six package level.

Where the eyes or body of any person may be exposed to injurious chemicals and/or materials, suitable facilities for quick drenching or flushing of the eyes and body are provided, within the work area, for immediate emergency use. A poster shall be fastened and maintained either on or in the cover of each first-aid kit and at or near all phones plainly stating, the phone numbers of available doctors, hospitals, and ambulance services within the district of the work site.

Fall Protection Program

1. All fall protection equipment shall meet or exceed the appropriate **American National Standards Institute (ANSI)** standard.
2. Ladders, walkways, work platforms, and open-sided floors shall comply with Occupational Safety and Health Administration (OSHA) regulations or fall protection must be used.
3. All personnel exposed to a potential free fall > six feet must receive fall protection training.
4. Safety approved aerial lifts may be used for working at heights, however, all operators must wear approved fall protection and be secured by a lanyard when the working height is six feet or higher.
5. Lanyards must be attached to prevent a free fall of six feet.
6. Approved attached points shall be established and marked in areas where lifelines and lanyards are used regularly. Lifeline attach points shall be capable of supporting a load of 5,400 pounds.
7. All fall protection equipment shall be visually inspected for defects prior to each use. If there is evidence of excessive equipment wear or deterioration or if mechanical malfunction is detected, the item shall be removed from service.
8. Fall protection equipment and assemblies shall be inspected according to the manufacturer's recommendations. Each belt and lanyard shall bear manufacturer identification marks.
9. Safety belts or lanyards that have been subjected to an impact load shall be destroyed. Load testing shall not be performed on fall protection equipment.
10. Personnel requiring the use of fall protection equipment shall employ the "Buddy System" or have an observer to render assistance when and if required. A trained observer must be present when personnel are performing work involving confined space entry.