

Number 1 - Hazard Communication Written Program

This program has been prepared to comply with the requirements of OSHA's Hazard Communication or Right-to-Know standard and to insure that information necessary for the safe use, handling and storage of hazardous chemicals is provided to and made available to employees. This program is also to be made available to representatives and OSHA officials upon request. A copy of this program is to be maintained at each jobsite.

A. Chemical Inventory

1. Alpine Painting and Restoration maintains an inventory of all known chemicals in use on the jobsite with reference to the name of the chemicals as they appear on material safety data sheets. This list is attached to this program.
2. Hazardous chemicals brought onto the jobsite by Alpine Painting and Restoration will be included on the hazardous chemical inventory list.

B. Container Labeling

1. All chemicals on site will be stored in their original or approved containers with a proper label attached, except small quantities for immediate use by any employee during his or her work shift. Any container not properly labeled should be given to _____ for labeling or proper disposal.
2. Workers may dispense chemicals from original containers only in small quantities intended for immediate use. Any chemical left after the work shift is completed must be returned to the original container or _____ for proper handling.
3. No unmarked containers of any size are to be left in the work area unattended.
4. Alpine Painting and Restoration will rely on manufacturer applied labels whenever possible, and will ensure that these labels are maintained. Containers that are not labeled or on which the manufacturer's label has been removed will be immediately remarked with that required information.
5. Alpine Painting and Restoration will ensure that each container is labeled with the identity of the hazardous chemical contained and any appropriate hazard warnings.

C. Material Safety Data Sheets (MSDS)

1. Employees working with a hazardous chemical may request a copy of the material safety data sheet (MSDS). Requests for MSDS's should be made to _____.
2. MSDS's must be readily accessible to employees in their work area. Alpine Painting and Restoration shall maintain copies of the required MSDS's for all hazardous chemical on each jobsite. In the event that a hazardous chemical is being used on this jobsite and for some unforeseen reason the appropriate MSDS is not on site, employees are requested to inform (*insert name or title of person here*) who will

notify the office of Alpine Painting and Restoration that the MSDS must be transmitted to the jobsite as soon as possible.

The fax number at Alpine Painting and Restoration is: (215)348-1195

The fax number at this jobsite is _____ -.

D. Employee Training

Employees will be trained to work safely with hazardous chemicals at the time of their initial assignment and whenever a new hazard is introduced in their work area. Employee training will include:

- (1) Methods that may be used to detect a release of a hazardous chemicals at the jobsite,
- (2) Physical and health hazards of chemicals,
- (3) Protective measures,
- (4) Details and requirements of this hazard communication program including:
 - explanation of the labeling system
 - explanation of the MSDS
 - how employees can obtain and use hazard information
- (5) Any operations on the jobsite where hazardous chemicals are present.
- (6) Location and availability of this written program, including the required chemical Inventory List (Section J.) and the MSDS's.

E. Personal Protective Equipment (PPE)

Required PPE is available from _____. Any employee found in violation of PPE requirements may be subject to disciplinary actions up to and including discharge.

F. Emergency Response

1. Any incident of over-exposure or spill of a hazardous chemical/substance must be reported to _____ at once.
2. The foreman or the immediate supervisor will be responsible for insuring that proper emergency response actions are taken in leak/spill situations.

G. Hazardous of Non-Routine Tasks

1. Supervisors will inform employees of any special tasks that may arise which would involve possible exposure to hazardous chemicals.
2. Review of safe work procedures and use of required personal protective equipment will be conducted prior to the start of such tasks. Where necessary, areas will be posted to indicate the nature of the hazard involved.

H. Informing Other Employers

1. Information on hazardous chemicals known to be present will be exchanged with other employers. This information will include:

- The methods that Alpine Painting and Restoration will use to inform other contractors on site of any precautionary measures to be taken to protect employees during normal operations and foreseeable emergencies.

- The methods that Alpine Painting and Restoration will use to inform other contractors of the labeling system used on containers of hazardous chemicals on the jobsite.

- The methods that Alpine Painting and Restoration will use to provide other contractors with copies of material safety data sheets.

Check One:

Material Safety Data Sheets will be provided to each other employer on site [].

Material Safety Data Sheets of all contractors will be kept in one central location at the jobsite [].

The central location is: _____.

I. Copies of the OSHA Standard and MSDS

Alpine Painting and Restoration maintains a copy of the OSHA Hazard communication standard and all MSDS's for employees at this jobsite. This information can be found at: _____.

J. Chemical Inventory List:

1. The list of all known chemicals at this jobsite is as follows: _____.



No. 2 - GENERAL SAFETY & HEALTH PROGRAM (PART I - POLICY STATEMENTS)

Statement of General Safety Policy

It is the policy of Alpine Painting and Restoration to furnish its employees with employment and jobsites that are free from recognized hazards that are causing or are likely to cause death or serious physical harm. It is also the policy of Alpine Painting and Restoration to comply with all applicable OSHA standards and regulations.

Statement of Safety Training Policy

To accomplish this goal, employee training is necessary. All employees will participate in jobsite "tool box talks" on safety matters as well as any other training methods that may be available such as group meetings, one-on-one safety discussions with supervisors, written and illustrated safety materials and safety videos.

Statement of Safety Inspection Policy

To ensure that safe practices exists on our jobsites, safety inspections are necessary. Frequent and regular safety inspections of the jobsites, equipment and material will be conducted by one or more "competent persons," who have the capability to identify existing and predictable hazards and who have the authority granted by (*insert your company name*) to take prompt corrective action. On this jobsite, the competent persons will be:_____

Statement of Employee Misconduct Policy

From time to time, it will be necessary for Alpine Painting and Restoration to establish certain rules of behavior to be followed by all employees. Some of these rules may be based upon the safe practices outlined elsewhere in this safety and health program, some rules may be based upon OSHA standards too numerous to be mentioned in this program, and some rules may be based upon as yet unforeseen jobsite circumstances. At any rate, employee misconduct will not be tolerated. To this end, the policy of Alpine Painting and Restoration on employee misconduct will be:_____

- ◆ All safety rules will be effectively communicated to all employees.

- ◆ _____ will take steps Alpine Painting and Restoration to detect any violations of its safety rules.

- ◆ Any infractions of company safety rules will be consistently enforced by Alpine Painting and Restoration in the following manner:

1st offense - verbal
warning
2nd offense - written
warning
3rd offense - suspension
4th offense - termination

Statement of Multi-employer Violations Policy

Construction is a dynamic, ever-changing environment in which our employees may be exposed to hazards created by other trades or other contractors. To reduce such employee exposure to hazards that are neither created by Alpine Painting and Restoration

nor controlled by Alpine Painting and Restoration the following policy will apply:

- ◆ Upon detection of an unsafe jobsite condition, the employer who created the hazard or the employer who controls the hazards or both will notified by Alpine Painting and Restoration , preferably in writing.
- ◆ All employees of Alpine Painting and Restoration will be provided with alternative means of protection against the hazard. If this is not possible, employees will be instructed to avoid the danger area. If this is not possible, employees will instructed on the nature of the hazard and be reminded to use extreme caution in the danger area.

The above steps will be repeated on a daily basis until the hazards are eliminated.

How This Safety Program Works

To help competent persons, supervisors, and all employees meet the policy objectives of Part I of this program, Part II has been provided as a reference tool. It is based upon OSHA's digest of its construction industry standards (OSHA Publication No. 2202) and it covers some of the most commonly violated OSHA standards and regulations in our industry. The topics are arranged alphabetically and each item includes a reference to the appropriate OSHA standard or regulation found in Volume 29 of the Code of Federal Regulations (CFR). For a thorough understanding of each requirement, the CFR itself must be consulted. Moreover, it is estimated that there are more than 25,000 OSHA standards applicable to construction. What follows in Part II is a comprehensive digest of 63 main areas of concern.

(Part II - Safety Practices)**1. Access to Medical and Exposure Records**

- All employees, their designated representatives, and OSHA shall have direct access to employer-maintained exposure and medical records. 1926.33(a).

- Medical and exposure records for each employee will be preserved. Exposure records and data analyses based on them will be kept for 30 years. Medical records will be kept for at least the duration of employment plus 30 years. Background data for exposure records such as laboratory reports and work sheets need be kept for only 1 year. Records of employees who have worked for less than 1 year need not be retained after employment, but the employer must provide these records to the employee upon termination of employment. First-aid records of one-time treatment need not be retained for any specified period. §1926.33(d).

2. Accident Recordkeeping and Reporting Requirements

- These shall be maintained at each jobsite a log and summary (OSHA Form No. 200 or equivalent) of all recordable injuries and illnesses (resulting in a fatality, hospitalization, lost workdays, medical treatment, job transfer or termination, or loss of consciousness) for

that jobsite and there shall also be entered each recordable event no later than six working days after receiving the information. Where the complete log and summary records are maintained at a place other than the jobsite (such as the company office), a copy of the log shall be available at the jobsite which reflects separately the injury and illness experience of that jobsite complete and current to a date within 45 calendar days. §1904.2(a) & (b)(2).

- In addition to the log of occupational injuries and illnesses, there shall be available for inspection at each jobsite within six working days after notification of a recordable case, a supplementary record (OSHA Form No. 101 or equivalent) for each occupational injury or illness for that jobsite. §1904.4
- There shall be posted an annual summary of occupational injuries and illnesses for each establishment, compiled from the collected Form 200's and including the year's totals, calendar year covered, company name, establishment name and address, certification signature, title and date. A form OSHA No. 200 shall be used in presenting the summary. The summary shall be posted by February 1, and shall remain in place until March 1. §1904.5.
- The log and summary, the supplementary record, and the annual summary shall be retained in each establishment for 5 years following the end of the year to which they relate. Records shall be made available, as authorized, upon request. §1904.6 & §1904.7(a) &(b).
- Within 8 hours after its occurrence, an employment accident which is fatal to one or more employees or which results in the hospitalization of three or more employees shall be reported, either orally or in writing, to the nearest OSHA Area Office. The following information will be related:
 - Jobsite name and location
 - Time of the accident
 - Number of fatalities or hospitalizations
 - Contact person
 - Telephone number
 - Brief description of the action.

1904.8(a)&(d).

3. Air Tools

- Pneumatic power tools shall be secured to the hose or whip in a positive manner to prevent accidental disconnection's. §1926.302(b)(1).
- Safety clips or retainers shall be securely installed and maintained on pneumatic impact tools to prevent attachments from being accidentally expelled. §1926.302(b)(2).
- The manufacturer's safe operating pressure for all fittings shall not be exceeded. §1926.302(b)(5).
- All hoses exceeding ½-inch inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure. §1926.302(b)(7).

4. Asbestos

- No employee is to be exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter of air as an eight (8) hour time-weighted average (TWA) and the excursion limit of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes. §1926.1101(c)(1)&(2).
- The regulated area where asbestos work is conducted shall be demarcated in any manner that minimizes the number of employees within the area and protect the employees outside the area from exposure to airborne concentrations of asbestos. §1926.1101(e)(2).
- Employees are prohibited from eating, drinking, smoking, chewing tobacco or gum or applying cosmetics in regulated areas. §1926.1101(e)(5).

5. Aerial Lifts

- Lift controls for extendible and articulating boom platforms shall be tested each day prior to use to determine that such controls are in safe working condition. §1926.453(b)(2).
- Tying off to an adjacent pole, structure or equipment shall not be permitted. Employees must tie lanyards to the boom or basket when working from an aerial lift. §1926.453(b)(2)(iii) and (v).

6. Belt Sanding Machines

- Belt sanding machines shall be provided with guards at each nip point where the sanding belt runs onto a pulley. §1926.304(f).
- The unused run of the sanding belt shall be guarded against accidental contact. §1926.304(f).

7. Compressed Air, Use of

- Compressed air used for cleaning purposes shall not exceed 30 psi and then only with effective chip guarding and personal protective equipment. §1926.302(b)(4).

8. Compressed Gas Cylinder

- Valve protection caps shall be in place when compressed gas cylinders are transported, moved, or stored. §1926.350(a)(1).

- Cylinder valves shall be closed when work is finished and when cylinders are empty or are moved. §1926.350(a)(8).
- Compressed gas cylinder shall be secured in an upright position at all times, except if necessary for short periods of time when cylinders are actually being hoisted or carried. §1926.350(a)(9).
- Cylinders shall be kept at safe distance or shielded from welding or cutting operations. Cylinders shall be placed where they cannot become part of an electrical circuit. §1926.350(b)(1) & (2).
- Oxygen and fuel gas regulators shall be in proper working order while in use. §1926.350(h).
- Oxygen and acetylene cylinders shall be separated by a distance of a least 25 feet or by a non-combustible barrier which separates them by at least 5 feet. §19256.350(j).

9. Concrete & Masonry Construction

- No construction loads shall be placed on a concrete structure or portion of a concrete structure unless the employer determines, based on information received from a person who is qualified in instructional design, that the structure or portion of the structure is capable of supporting the loads. §1926.701(a).

- All protruding reinforcing steel, onto and into which employees could fall, shall be guarded to eliminate the hazard of implement. §1926.701(b).

- No employee shall be permitted to work under concrete buckets while buckets are being elevated or lowered into position. §1926.701(a)(e)(1) & (2).

- To the extent practical, elevated concrete buckets shall be routed so that no employee, or the fewest number of employees, are exposed to the hazards associated with falling concrete buckets. §1926.701(e)(2).

- Formwork shall be designed, fabricated, erected, supported, braced and maintained so that it will be capable of supporting without failure all vertical and lateral loads that may reasonably be anticipated to be applied to the formwork. §1926.703(a)(1).

- Forms and shores (except those used for slabs on grade and slip forms) shall not be removed until the employer determines that the concrete has gained sufficient strength to support its weight and superimposed loads. Such determination shall be based on compliance with one of the following:
 - ♦ The plans and specifications stipulate conditions for removal of form and shores and such conditions have been followed, or

 - ♦ The concrete has been properly tested with an appropriate American Society for Testing Materials (ASTM) standard test

method designed to indicate the concrete compressive strength, and the test results indicate that the concrete has gained sufficient strength to support its weight and superimposed loads. §1926.703(e)(1).

- A "limited access zone" shall be established whenever a masonry wall is being constructed. The limited access zone shall conform to the following:
 - ◆ The limited access zone shall be established prior to the start of construction of the wall.
 - ◆ The limited access zone shall be equal to the height of the wall to be constructed plus 4 feet, and shall run the entire length of the wall.
 - ◆ The limited access zone shall be established on the side of the wall which will be unscaffolded.
 - ◆ The limited access zone shall be restricted to entry by employees actively engaged in construction the wall. No other employees shall be permitted to enter the zone.
 - ◆ The limited access zone shall remain in place until the wall is adequately supported to prevent overturning and to prevent collapse unless the height of a

wall is over 7 feet, in which case, the limited access zone shall remain in place until the requirements of Section 1926.706(b) have been met. §1926.706(a)(1) through (5).

- All masonry walls over 8 feet in height shall be adequately braced to prevent overturning and to prevent collapse unless the wall is adequately supported so that it will not overturn or collapse. The bracing shall remain in place until permanent support elements of the structure are in place. §1926.706(b).

10. Crane and Derricks

- The use of cranes and derricks shall comply with the manufacturer's specifications and limitations where available. §1926.550(a)(1).
- Rated load capacities, recommended operating speeds, and special hazard warnings or instructions shall be conspicuously posted on all equipment. Instructions or warnings shall be visible from the operator's station. §1926.550(a)(2).
- Equipment shall be inspected by a competent person before each use and during use, and all deficiencies corrected before further use. §1926.550(a)(5).
- Accessible areas within the swing radius of the rear of the rotating superstructure shall be properly barricaded to prevent employees from being struck or crushed by the crane. §1926.550(a)(9).
- Except where electrical distribution and transmission lines have been de-energized and visibly grounded at point of work, or where insulating barriers not part of or an attachment to the equipment or machinery have been erected to prevent physical contact with the lines, no part of a crane or its load shall be operated within 10 feet of a line rated 50 kV or below; 10 feet + 0.4 inches for each 1 kV over 50 kV for lines rated over 50 kV, or twice the length of the line insulator, but never less than 10 feet. §1926.550(a)(15)(i) & (ii).
- An annual inspection of the hoisting machinery shall be made by a competent person or by a government or

private agency recognized by the U.S. Department of Labor. Records shall be kept of the dates and results of each inspection. §1926.550(a)(6).

- The use of crane or derrick to hoist employees on a personnel platform is prohibited, except when the erection, use, and dismantling of conventional means of reaching the worksite, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform or scaffold, would be more hazardous, or is not possible because of structural design or worksite conditions. §1926.500(g)(2).

11. Disposal Chutes

- Whenever materials are dropped more than 20 feet to any exterior point of a building, an enclosed chute shall be used. §1926.252(a).
- When debris is dropped through holes in the floor without the use of chutes, the area where the material is dropped shall be enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected edges of the opening above. Warning signs of the hazard of falling material shall be posted at each level. §1926.252(b).

12. Drinking Water

- An adequate supply of potable water shall be provided in all places of employment. §1926.51(a)(1).

- Potable drinking water containers shall be capable of being tightly closed and be equipped with a tap. §1926.51(a)(2).
- The disposable paper drinking cup is prohibited unless there is a drinking cup dispenser in use and a trash can nearby. §1926.51(a)(5).

13. **Electrical Installations**

- Electrical installations made in accordance with the 1984 National Electrical Code are considered to be in compliance with OSHA's electrical standards for Construction, except for the following additional requirements:

1. Employers must provide either ground-fault circuit interrupters (GFCIs) or an assured equipment grounding conductor program to protect employees from ground-fault hazards at construction sites. The two options are detailed below:

Either

- ◆ All 120-volt, single-phase, 15- and 20-ampere receptacles that are not part of the permanent wiring must be protected by GFCIs. Receptacles on smaller generators are exempt under certain conditions.

Or

- ◆ An assured equipment grounding program covering extension cords, receptacles, and cord-and plug-connected equipment must be implemented. The program must include the following:
 - A written description of the program.
 - At least one competent person to implement the program.
 - Daily visual inspections of extension cords and cord-and plug-connected equipment for defects.
 - Continuity tests of the equipment grounding of receptacles, extension cords, and cord- and plug-connected equipment. These tests must generally be made every 3 months.
- Lamps for general illumination must be protected from breakage, and metal shall sockets must be grounded. §1926.405(a)(2)(ii)(E).
- Temporary lights must not be suspended by their cords, unless they are so designed. §1926.405(a)(2)(ii)(F).
- Portable lighting used in wet or conductive locations, such as tanks or boilers, must be operated at no more than 12 volts or must be protected by GFCIs. §1926.405(a)(2)(ii)(G).

- Extension cords must be of the three-wire type. Extension cords and flexible cords used with temporary and portable lights must be designed for hard or extra-hard usage (for example, types S, ST and SO). §1926.405(a)(2)(ii)(J).

14. Electrical Work Practices

- Employers must not work near live parts of electrical circuits, unless the employees are protected by one of the following means:
 - ◆ De-energizing and grounding the parts.
 - ◆ Guarding the part by insulation.
 - ◆ Any other effective means.

§1926.416(a)(1).

- In work areas where the exact location of underground electrical power lines is unknown, employees using jack hammers, bars, or other hand tools that may contact the lines must be protected by insulating gloves. §1926.416(a)(2).
- Barriers or other means of guarding must be used to ensure that workspace for electrical equipment will not be used as a passageway during periods when energized parts of equipment is exposed. §1926.416(b).
- Worn or frayed electrical cords or cables must not be used. Extension cords must not be fastened with

staples, hung from nails, or suspended by wire. §1926.416(e)(1) & (2).

- Equipment or circuits that are de-energized must be rendered inoperative and must have tags attached at all points where the equipment or circuits could be energized. §1926.417(b).

15. Excavation and Trenching

- Before opening any excavation, efforts shall be made including utility company contact to determine if there are underground utilities installations in the area, and they shall be located and supported during the excavation operations. §1926.651(b)(2).
- The walls and faces of excavations 5 feet or more deep in which employees are exposed to danger from moving ground or cave-in shall be guarded by a shoring system, sloping of the ground, or some other equivalent means. §1926.652(a).
- In excavations which employees may be required to enter, excavated or other material shall be effectively stored and retained at least 2 feet or more from the edge of the excavation. §1926.651(j)(2).
- Daily inspections of excavations shall be made by a competent person. If evidence of possible cave-ins or slides is apparent, all work in the excavation shall cease until the necessary precautions have been taken to safeguard the employees. §1926.651(k)(1).

- All surface encumbrances whose location creates a hazard shall be removed or supported. §1926.651(a).
- Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available where hazardous atmosphere conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attached when in use. §1926.651(g)(2).

- Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems, such as shoring, bracing or underpinning shall be provided to ensure the stability of such structures for the protection of employees. §1926.651.(i)(1).
- A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel. §1926.651(c)(2).
- Each employee at the edge of an excavation 6 feet or more in depth shall be protected from falling by guardrail systems, fences or barricades when the excavations are not readily seen because of plant growth or other visual barrier. §1926.501(b)(7)(i).
- Each employee at the edge of a well, pit, shaft and similar excavation 6 feet or more in depth shall be protected from falling by guardrail systems, fences barricades or covers. §1926.501(b)(7)(ii).

16. Explosives and Blasting

- Only authorized and qualified persons shall be permitted to handle and use explosives. §1926.900(a).
- Smoking and open flames shall not be permitted within 50 feet of explosives and detonator storage magazines. §1926.904(c).
- Procedures that permit safe and efficient loading shall be established before loading is started. §1926.905(a).

17. Eye and Face Protection

- Eye and face protection shall be provided when machines or operations present potential eye or face injury. §1926.102(a)(1).
- Employees involved in welding operations shall be furnished with filter lenses or plates of at least the proper shade number. §1926.102(b)(1).
- Employees exposed to laser beams shall be furnished suitable laser safety goggles which will protect for the specific wavelength of the laser and be optical density (OD) adequate for the energy involved. §1926.102(b)(2).

18. Fire Protection

- Fire fighting equipment shall be conspicuously located and readily accessible at all times, shall be periodically inspected, and be maintained in operating condition. §1926.150(a)(2)(3) & (4).
- Carbon tetrachloride and other toxic vaporizing liquid fire extinguishers are prohibited. §1926.150(c)(1)(vii).
- A fire extinguisher, rated not less than 2A, shall be provided for each 3,000 square feet of the protected building area, or major fraction thereof. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet. §1926.150(c)(1)(i).

19. Flagmen

- When signs, signals, and barricades do not provide necessary protection on or adjacent to highway or street, flagmen or other appropriate traffic controls shall be provided. §1926.201(a)(1).
- Flagmen shall be provided with and shall wear a red or orange warning garment while flagging. Warning garments worn at night shall be of reflectorized materials. §1926.201(a)(4).

20. Flammable and Combustible Liquids

- Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids. §1926.152(a)(1).
- No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet. No more than 60 gallons of flammable or 120 gallons of combustible liquids shall be stored in any one storage cabinet. No more than three storage cabinets may be located in a single storage area. §1926.152(b)(1), (2) & (3).
- Inside storage rooms for flammable and combustible liquids shall be of fire-resistive construction, have self-closing fire doors at all openings, 4-inch sills or depressed floors, a ventilation system that provides at least six air changes within the room per hour, and electrical wiring and equipment approved for Class I, Division 1 locations. §1926.152(b)(4).
- Storage in containers outside buildings shall not exceed 1,100 gallons in any one pile or area. The storage area shall be graded to divert possible spills away from building or other exposures, or shall be surrounded by a curd or dike. Storage areas shall be located at least 20 feet from any building and shall be free from weeds, debris, and other combustible materials not necessary to the storage. §1926.152(c)(1),(3),(4) & (5).
- Flammable liquids shall be kept in closed containers when not actually in use. §1926.152(f)(1).
- Conspicuous and legible signs prohibiting smoking shall be posted in service and refueling areas. §1926.152(g)(9).

21. Floor Openings, Open Sides, Dangerous Equipment.

- Floor holes (including skylights) more than 6 feet above lower levels shall be provided with covers or guardrail systems, or employees shall be protected by personal fall arrest systems. §1926.501(b)(4)(i)
- Unprotected sides and edges more than 6 feet above a lower level shall be protected by the use of guardrail systems, safety net systems or personal fall arrest systems. §1926.501(b)(1)
- Employees working above dangerous equipment, which is less than 6 feet below, shall be protected from falling into or onto the dangerous equipment by guardrail systems or by equipment guards. §1926.501(b)(8)(i).
- Employees working above dangerous equipment which is more than 6 feet below, shall be protected from fall hazards by guardrail systems, personal fall arrest systems or safety net systems. §1926.501(b)(8)(ii)

22. Hand Tools

- Employer shall not issue or permit the use of unsafe hand tools. §1926.301(a).
- Wrenches shall not be used when jaws are sprung to the point that slippage occurs. Impact tools shall be kept free of mushroomed heads. The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool. §1926.301(b)(c) & (d).

- Electric power operated tools shall either be approved double-insulated, be properly grounded, or used with ground fault circuit interrupters. §1926.302(a).

23. Head Protection

- Hard hats shall be worn in areas where there is a possible danger of head injuries from impact, flying or falling objects or electrical shock and burns. §1926.100(a).
- When employees are exposed to falling objects, each employee must wear a hard hat and are of the following measures must be taken:
 - Erection of toeboards, screens or guardrail systems.
 - Erection of a canopy structure, keeping objects far from the edge of the higher elevation.
 - Barricading the area into which objects could fall prohibiting employees from entering the barricaded area and keeping objects far from the edge of the higher elevation.

§1926.501(c)(2)&(3).

24. Hearing Protection

- Feasible engineering or administrative controls shall be utilized to protect employees against sound levels in excess of those shown in Table D-2. §1926.52(b).
- When engineering or administrative controls fail to reduce sound levels within the limits of Table D-2, ear



protective devices shall be provided and used. §1926.52(b) and §1926.101(a).

- Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level. §1926.52(e).
- In all cases where the sound levels exceed the values shown in Table D-2 of the Safety and Health Standards, a continuing, effective hearing conversation program shall be administered. §1926.52(d)(1).

• **Table D-2 Permissible Noise Exposures:**

Sound Level

<u>Duration per day, hours:</u>	<u>dBA slow response</u>
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
¼ or less	115

§1926.52(d)(1).

- Plain cotton is not an acceptable protective device. §1926.101(c).

25. Heating Devices, Temporary

- Fresh air shall be supplied in sufficient quantities to maintain the health and safety of workers. §1926.154(a)(1).
- Solid fuel salamanders are prohibited in buildings and on scaffolds. §1926.154(d).

26. Hoist, Material and Personnel

- The manufacturer's specifications and limitations shall be followed. §1926.552(a)(1).
- Rated load capacities, recommended operating speeds, and special hazard warnings or instructions shall be posted on cars and platforms. §1926.552(a)(2).
- Hoistway entrances of material hoists shall be protected by substantial full width gates or bars. §1926.552(b)(2).
- Hoistway doors or gates of personnel hoist shall be not less than 65 feet, 6 inches high, and be protected with mechanical locks which cannot be operated from the

landing side and are accessible only to persons on the car. §1926.552(b)(3) & (c)(7).

- Overhead protective coverings shall be provided on the top of the hoist cage or platform. §1926.552(b)(8).

27. Housekeeping

- Form and scrap lumber with protruding nails and all other debris, shall be kept clear from all work areas. §1926.25(a).
- Combustible scrap and debris shall be removed at regular intervals. §1926.25(b).
- Containers shall be provided for collection and separation of all refuse. Covers shall be provided on containers used for flammable or harmful substances. §1926.25(c).
- Wastes shall be disposed of at frequent intervals. §1926.25(c).

28. Illumination

- Construction areas, ramps, runways, corridors, offices, shops, and storage areas shall be lighted to not less than the minimum illumination intensities listed in Table D-3 while any work is in progress. §1926.56(a).

- Table D-3 Minimum Illumination Intensities in foot-candles:

FOOT-CANDLES: AREA OR OPERATION

5.....	General construction area lighting.
3.....	General construction areas, concrete placement, excavation, waste areas, access-ways, active storage areas, loading platform, refueling, and field maintenance areas.
5.....	Indoor: warehouses, corridors, hallways, and exit ways.
5.....	Tunnels, shafts, and general underground work areas: (Exception: minimum of 10 foot-candles is required at tunnel and shaft heading during drilling, mucking, and scaling. Bureau of Mines approved cap lights shall be acceptable for use in the tunnel heading).
10.....	General construction plant and shops (e.g. batch plants, screening plants, mechanical and electrical equipment rooms, carpenters, shops, rigging lofts and active storerooms, barracks or living quarters, locker or dressing rooms, mess halls indoor toilets and workrooms).
30.....	First aid stations, infirmaries, and offices.

§1926.56(a).

29. Jointers

- Each hand-fed planer and jointer with a horizontal head shall be equipped with a cylindrical cutting head. The opening in the table shall be kept as small as possible. §1926.304(f).
- Each hand-fed jointer with a horizontal cutting head shall have an automatic guard which will cover the section of the head on the working side of the fence or cage. §1926.304(f).
- A jointer guard shall automatically adjust itself to cover the unused portion of the head, and shall remain in contact with the material at all times. §1926.304(f).

30. Ladders

- A ladder or stairway shall be provided at all personnel points of access where there is a break in elevation of 19 inches. §1926.1051(a).
- Ladders shall be maintained free of oil grease and other slipping hazards. §1926.1053(b)(2).
- Ladders shall only be used for the purpose for which they were designed. §1926.1053(b)(4).

- Ladders shall be used only on stable and level surfaces unless secured to prevent accidental displacement. §1926.1053(b)(6).
- The area around the top and bottom of ladders shall be kept clear §1926.1053(b)(9).
- Ladders shall not be moved, shifted or extended while occupied. §1926.1053(b)(11).
- The top or top step of a stepladder shall not be used as a step. §1926.1053(b)(13).
- Single-rail ladders are prohibited. §1926.1053(b)(19).

31. Lasers

- Only qualified and trained employees shall be assigned to install, adjust, and operate laser equipment. §1926.54(a).
- Employees shall wear proper eye protection where there is a potential exposure to laser light greater than 0.005 watts (5 milliwatts). §1926.54(c).
- Beam shutters or caps shall be utilized or the laser turned off, when laser transmission is not actually required. When the laser is left unattended for a

substantial period of time, such as during lunch hour, overnight, or at change of shifts, the laser shall be turned off. §1926.54(e).

- Employees shall not be exposed to light intensities above: direct staring-1 micro-watt per square centimeter; incidental observing 1-milliwatt per square centimeter; diffused reflected light-2½ watts per square centimeter. Employees shall not be exposed to microwave power densities in excess of 10 milliwatts per square centimeter. §1926.54(j) & (l).

32. Liquefied Petroleum Gas

- Each system shall have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type. §1926.153(a)(1).
- All cylinders shall meet DOT specifications. §1926.153(a)(2).
- Every container and vaporizer shall be provided with one of more approved safety relief valves or devices. §1926.153(d)(1).
- Containers shall be placed upright on firm foundations or otherwise firmly secured. §1926.153(g) & (h)(11).
- Portable heaters shall be equipped with an approved automatic device to shut off the flow of gas in the event of flame failure. §1926.153(h)(8).

- Storage of LPG within buildings is prohibited. §1926.153(j).
- Storage locations shall have at least one approved portable fire extinguisher, rated not less than 20-B:C. §1926.153(l)

33. Medical Services and First Aid

- When medical services are not reasonable accessible for the treatment of injured employees, a person trained to render first aid shall be available at the worksite. §1926.50(c).
- First aid supplies shall be readily available at the jobsite. §1926.50(d)(1).
- The telephone numbers of the physicians, hospitals or ambulances shall be conspicuously posted. §1926.50(f).

34. Motor Vehicles and Mechanized Equipment

- All vehicles in use shall be checked at the beginning of each shift to assure that all parts, equipment, and accessories that affect safe operation are in proper operating condition and free from defects. All defects shall be corrected before the vehicle is placed in service. §1926.601(b)(14).
- No employee shall use any motor vehicle, earth-moving or compacting equipment having an obstructed view to the rear unless:

- the vehicle has a reverse signal alarm distinguishable from the surrounding noise level, or

- the vehicle is backed up only when an observer signals that it is safe to do so.

§§1926.601(b)(4) and 1926.602(a)(9).

- Heavy machinery, equipment, or parts thereof which are suspended or held aloft shall be substantially blocked to prevent falling shifting before employees are permitted to work under or between them. §1926.600(a)(3)(i).

35. Personal Protective Equipment

- The employer is responsible for requiring the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions and where there is a need indicated in OSHA's construction standards for using such equipment to reduce the hazard to the employees. §1926.28(a).

- Lifelines, safety belts, and lanyards shall be used only for employee safeguarding. §1926.104(a).

- Employees working over or near water, where the danger of drowning exists, shall be provided with U.S. Coast Guard-approved life jackets or buoyant work vests. §1926.106(a).

36. Powder-Actuated Tools

- Only trained employees shall be allowed to operate powder-actuated tools. §1926.302(e)(1).
- All powder-actuated tools shall be tested daily before use and all defects discovered before or during use shall be corrected. §1926.302(e)(2) & (3).
- Tools shall not be loaded until immediately before use. Loaded tools shall not be left unattended. §1926.302(e)(5) & (6).

37. Power Transmission and Distribution

- Existing conditions shall be determined before starting work, by an inspection or a test. §1926.950(b)(1).
- Electric equipment and lines shall be considered energized until determined otherwise by testing or until grounding. §1926.950(b)(2) and §1926.954(a).
- Operating voltage of equipment and lines shall be determined before working on or near energized parts. §1926.950(b)(3).
- Rubber protective equipment shall be visually inspected before use. §1926.950(a)(1).

38. Power Transmissions, Mechanical

- Belts, gears shafts, pulleys, sprockets, spindles, drums, flywheels, chains or other reciprocating, rotation or moving parts of equipment shall be guarded if such parts are exposed to contact by employees or otherwise constitute a hazard. §1926.300(b)(2).

39. Radiation, Ionizing

- Persons using radioactive materials or X-ray shall be specially trained, or licensed if required. §1926.53(b).

40. Railings

- Top edge height of toprails shall be between 39 and 45 inches. Mid-rail height shall be 21 inches. §1926.502(b)(1)&(2).
- Intermediate vertical members (such as balusters) when used between posts, shall not be more than 19 inches wide. §1926.502(b)(2)(iii).
- Guardrail systems shall be capable of withstanding a force of at least 200 pounds applied within 2 inches of the top edge in any outward or downward direction, at any point along the top edge. Under no circumstances can the top edge deflect to a height less than 39 inches. §1926.502(b)(3)&(4).
- Mid-rails, screens, mesh, intermediate vertical members, solid panels and equivalent structural members shall be capable of withstanding a force of at least 150 pounds applied in any downward or outward direction. §1926.502(b)(5).

- Guardrail surfaces must be smooth enough to prevent punctures, lacerations or snagging of clothing. §1926.502(b)(6).
- If wire rope is used for top rails, it must be flagged every six feet with high-visibility material. §1926.502(b)(9).

41. Respiratory Protection

- The employer shall ensure that an employee using a tight-fitting facepiece respirator is fit tested prior to initial use of the respirator whenever a different respirator facepiece (size, style, model or make) is used, and at least annually thereafter. §1910.134(f)(2).
- The employer shall select and provide an appropriate respirator based on the respiratory hazards to which the worker is exposed as well as workplace and user factors that affect respirator performance and reliability. §1910.134(d)(1)(i).
- The employer shall identify and evaluate the respiratory hazards in the workplace. This evaluation shall include a reasonable estimate of employee exposures to respiratory hazards and an identification of the contaminant's chemical and physical form. 1910.134(d)(iii)
- The employer shall not permit respirators with tight-fitting facepieces to be worn by employees who have:
 - facial hair that come between the sealing surface of the facepiece and the face or that interferes with valve function; or

- any condition that interferes with the face-to-facepiece seal or valve function.

§1910.134(g)(1)(i)(A) and (B).

42. Rollover Protective Structures (ROPS)

- Rollover protective structures (ROPS) applies to the following types of materials handling equipment: To all rubber-tired, self-propelled scrapers, rubber-tired front-end loaders, rubber-tired dozers, wheel-type agricultural and industrial tractors, crawler tractors, crawler-type loaders, and motor graders, with or without attachments, that are used in construction work. This requirement does not apply to sideboom pipelaying tractors. §1926.1000(a)(1).

43. Safety Nets

- Safety nets shall be installed as close as practicable under walking/working surfaces, but not less than 30 feet below. §1926.502(c)(1).
- Safety nets shall be drop-tested at the jobsite after initial installation and before being used as a fall protection system, whenever relocated, after each major repair, and at 6-month intervals if left in one place §1926.502(c)(4)(i).
- Defective nets shall not be used. Safety nets shall be inspected at least once a week for wear, damage, and other deterioration. §1926.502(c)(5).
- Materials, scraps pieces, equipment and tools which have fallen into the safety net shall be removed before the next work shift. §1926.502(c)(6).

44. Saws, Band

- All portions of band saw blades shall be enclosed or guarded, except for the working portion of the blade between the bottom of the guide rolls and the table. §1926.340(f).

45. Saw, Portable Circular

- Portable, power-driven circular saws shall be equipped with guards above and below the base plate or shoe. The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work, and shall automatically return to the covering position when the blade is removed from the work. §1926.304(d).

46. Saws, Radial

- Radial saws shall have an upper guard which completely encloses the upper half of the saw blade. The sides of the lower exposed portion of the blade shall be guarded by a device that will automatically adjust to the thickness of and remain in contact with the material being cut. §1926.304(f).
- Radial saws used for ripping shall have non-kickback fingers or dogs. §1926.304(f).
- Radial saws shall be installed so that the cutting head will return to the starting position when released by the operator. §1926.304(f).

47. Saws, Swing or Sliding Cut-Off

- All swing or sliding cut-off saws shall be provided with a hood that will completely enclose the upper half of the saw. §1926.304(f).
- Limit stops shall be provided to prevent swing or sliding type cut-off saws from extending beyond the front or back edges of the table. §1926.304(f).
- Each swing or sliding cut-off saw shall be provided with an effective device to return the saw automatically to

the back of the table when released at any point of its travel. §1926.304(f).

- Inverted sawing of sliding cut-off saws shall be provided with a hood that will cover the part of the saw that protrudes above the top of the table or material being cut. §1926.304(f).

48. **Saws, Table**

- Circular table saws, shall have a hood over the portion of the saw above the table, so mounted that the hood will automatically adjust itself to the thickness of and remain in contact with the material being cut. §1926.304(f).
- Circular table saws shall have a spreader aligned with the blade, spaced no more than ½-inch behind the largest blade mounted in the saw. This provision does not apply when grooving, dabbing, or ribbeting. §1926.304(f).
- Circular table saws used for ripping shall have non-kickback fingers or dogs. §1926.304(f).
- Feed rolls and blades of self-feed circular saws shall be protected by a hood or guard to prevent the hands of the operator from coming in contact with the in running tools at any time. §1926.304(f).

49. **Scaffolds (General)**

- Unless cleated or otherwise restrained by hooks or equivalent means, each end of a platform shall extend over the center line of its support at least 6 inches. §1926.451(b)(4).
- Each end of a platform 10 feet or less in length shall not extend over its support more than 12 inches (18 inches for platforms greater than 10 feet in length) unless the platform is designed and installed so that the cantilevered portion of the platform is able to support employees or materials or both without tipping or has guardrails which block access to the cantilevered end. §1926.451(b)(5)(i) and (ii).
- The front edge of all platforms shall not be more than 14 inches from the face of the work (3 inches for outrigger scaffolds; 18 inches for plastering and lathing operating), unless guardrail systems are erected along the front edge or personal fall arrest systems are used. §1926.451(b)(3)(i) and (ii).
- Where platforms are overlapped, the overlap shall occur only over supports, and shall not be less than 12 inches unless the platforms are nailed together or otherwise restrained. §1926.451(b)(7).
- Scaffolds shall be erected, moved, dismantled or altered only under the supervision and direction of a competent person qualified in scaffold erection, moving, dismantling or alteration. §1926.451(f)(7).
- Employees must be protected from falling objects wearing hard hats and by either toeboards, screens, guardrail systems, debris nets, catch platforms or canopy structures. §1926.451(b)(1).

50. Scaffolds (Mobile)

- Scaffolds shall be braced by cross, horizontal, or diagonal braces to prevent collapse and to secure vertical members. Scaffolds shall be plumb, level and squared. All braced connections shall be secured. §1926.452(w)(1).
- Castors and wheels shall be locked while the scaffold is stationary and in use. §1926.452(w)(2).

51. Scaffolds (Swinging)

- Suspension scaffolds outrigger beams shall be made of structural metal or equivalent strength material and shall be restrained to prevent movement. §1926.451(d)(2).
- Sand, gravel and similar flowable material shall not be used as counterweights. §1926.451(d)(3)(ii).
- Counterweights shall not be removed from an outrigger beam until the scaffold is disassembled §1926.451(d)(3)(v).
- The use of repaired wire rope as suspension rope is prohibited. §1926.451(d)(7).

52. Scaffolds (Tubular Welded Frame)

- Supported scaffolds with a height to base width ratio of more than four to 1 (4:1) shall be restrained from tipping, by guying, tying, bracing or equivalent means. §1926.451(c)(1).
- Supported scaffold poles, legs, posts frames and uprights shall bear on base plates, mud sills or other adequate firm foundation. §1926.451(c)(2).
- Unstable objects shall not be used to support scaffold or platform units. §1926.451(c)(2)(iii).
- Frames and panels shall be joined together vertically by coupling or stacking pins or equivalent means. §1926.452(c)(3).
- Scaffolds over 125 feet shall be designed by a registered professional engineer, and shall be constructed and loaded according to such design. §1926.452(c)(6).

53. Stairways

- Stairways having four or more risers or rising more than 30 inches, whichever is less, shall be equipped with at least one handrail and one stairway system along each unprotected side or edge. §1926.1052(c)(1).
- Where doors or gates open directly on a stairway, a platform shall be provided. The swing of the door or gate shall not reduce the width of the platform to less than 20 inches. §1926.1052(a)(4).
- Stairs shall be installed between 30° and 50° from horizontal. §1926.1052(a)(2).
- Metal pan landings and metal pan trends, when, used, shall be secured in place before filling with concrete or other material. §1926.1052(a)(5).
- Treads for temporary service shall be made of wood or other solid material, and shall be installed the full width and depth of the stair. §1926.1052(b)(3).
- Stairwell systems and handrails shall be so surfaced as to prevent injury to employees from punctures or lacerations, and to prevent snagging of clothing. §1926.1052(c)(8).

54. Steel Erection

- Steel shall not be erected unless the steel erection contractor has received written notification that the concrete in the footing, piers and walls or the mortar in the masonry piers and walls has attained, on the basis of an appropriate ASTM standard test method or field-cured samples, either 75% of the intended minimum

comprehensive design strength or sufficient strength to support the loads imposed during steel erection 29 CFR§ 1926. 752(b)

- A firm, properly graded, drained area, readily accessible to the work with adequate space for the safe storage of materials and the safe operation of the steel erector's; equipment shall be provided and maintained by the controlling contractor 29 CFR§ 1926.752 (c)(2).
- No more than five members each be hoisted in a multiple lift rigging procedure. 29 CFR§753(e)(i)(ii).
- Structural stability shall be maintained at all times during the erection process. 29 CFR§1926.754(a).
- All roof and floor opening covers shall be painted with high visibility paint or shall be marked with the words "hole" or "cover". 29 CFR§1926.754(e)(3)(iii).
- Each column splice shall be designed to resist minimum eccentric gravity load of 700 pounds located 18 inches from the extreme outer face of the column in each direction at the top of the column shaft. 29CFR§1926.756(d).
- The bottom chords or steel joists at columns shall be stabilized to prevent rotation during erection. 29 CRF§1926.757(a)(1)(ii).
- All materials, equipment, and tools, which are not in use while aloft, shall be secured against accidental displacement. 29 CFR§1926. 759 (a).

55. Storage

- All materials stored in tiers shall be secured to prevent sliding, falling or collapse. §1926.250(a)(1).
- Aisles and passageways shall be kept clear and in good repair. §1926.250(a)(3).
- Storage of materials shall not obstruct exits. §1926.151(d)(1).
- Materials shall be stored with due regard to their fire characteristics. §1926.151(d)(2).
- Weeds and grass in outside storage areas shall be kept under control. §1926.151(c)(3).

56. Tire Cages

- A safety tire rack, cage, or equivalent protection shall be provided and used when inflating, mounting, or dismounting tires installed on split rims, or rims equipped with locking rings or similar devices. §1926.600(a)(2).

57. Toeboards (Floor and Wall Openings and Stairways)

- Toeboards shall be at least 3½ inches high and shall have not more than ¼ inch clearance above the walking/working surface. Toeboards shall be solid with openings no greater than 1 inch. §1926.502(j)(3).

- Toeboards shall be capable of withstanding a force of at least 50 pounds applied in any downward or outward direction at any point along the toeboard. §1926.502(j)(2).

58. Toilets

- Toilets shall be provided according to the following: 20 or fewer persons - one facility; 20 or more persons-one toilet seat and one urinal per 40 persons; 200 or more persons-one toilet seat and one urinal per 50 workers. §1926.51(c)(1).

59. Underground Construction

- There shall be provided and maintained a safe means of access and egress to all work stations. §1926.800(b).
- The employer shall control access to all openings to prevent unauthorized entry underground. Unused chutes, manways, or other openings shall be tightly covered, bullheaded, or fenced off, and shall be posted with signs indicating "Keep Out" or similar language. Completed or unused sections of the underground facility shall be barricaded. §1926.800(b)(3).
- Unless underground facilities are sufficiently completed, the employer shall maintain a check-in/check-out procedure that will ensure that above-ground designated personnel can determine an accurate count of the number persons underground in the event of an emergency. §1926.800(c).

- All employees shall be instructed to recognize and avoid hazards associated with underground construction activities. §1926.800(d).
- The employer shall assign a competent person to perform all air monitoring to determine proper ventilation and quantitative measurements of potentially hazardous gases. §1926.800(j).
- Fresh air shall be supplied to all underground work areas in sufficient quantities to prevent dangerous or harmful accumulation of dust, fumes, mists, vapors or gases. §1926.800(k).

60. Wall Openings

- Each employee working on, at, above or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is 6 feet or more above the lower levels and the inside bottom edge of the wall opening is less than 39 inches above the working/walking surface, shall be protected by a guardrail system, a safety net system or a personal fall arrest system. §1926.501(b)(14).

61. Washing Facilities

- There shall be provided adequate washing facilities for employees engaged in operations involving harmful substances. §1926.51(f).

- Washing facilities shall be in near proximity to the worksite and shall be so equipped as to enable employees to remove all harmful substances. §1926.51(f).

62. Welding, Cutting and Heating

- Employees shall be instructed in the safe use of welding equipment. §1926.350(d) and 1926.351(d).
- Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention shall be taken in areas where welding or other "hot work" is being done. No welding, cutting or heating shall be done where the application of flammable paints, or the presence of other flammable compounds, or heavy dust concentrations creates a fire hazard. §1926.352(a),(b),(c),(e) and (f).
- Arc welding and cutting operations shall be shielded by non-combustible or flameproof shields to protect employees from direct arc rays §1926.351(e).
- When electrode holders are to be left unattended, the electrodes shall be removed and the holder shall be placed or protected so that they cannot make electrical contact with employees or conducting objects. §1926.351(d)(1).
- All arc welding and cutting cables shall be completely insulated and be capable of handling the maximum current requirements for the job. There shall be no repairs or splices within 10 feet of the electrode holder,

except where splices are insulated equal to the insulation of the cable. Defective cable shall be repaired or replaced. §1926.351(b).

- Fuel gas and oxygen hose shall be easily distinguishable and shall not be interchangeable. Hoses shall be inspected at the beginning of each shift and shall be repaired or replaced if defective. §1926.351(b).

- General mechanical or local exhaust ventilation or air line respirators shall be provided, as required, when welding, cutting or heating:
 - zinc-, lead-, cadmium-, mercury-, or beryllium-, bearing, based or coated materials in enclosed spaces

 - stainless steel with inert-gas equipment

 - in confined spaces

 - where an unusual condition can cause an unsafe accumulation of contaminants

§1926.353(b)(c) & (d).

- Proper eye protective equipment to prevent exposure of personnel shall be provided. §1926.353(e)(2).

63. Wire Ropes, Chains, Ropes, Etc.

- Wire ropes, chains, ropes, and other rigging equipment shall be inspected prior to use and as necessary during



use to assure their safety. Defective gear shall be removed from service. §1926.251(a)(1).

- Job or shop hoods and links, or makeshift fasteners, formed from bolts, rods, etc. or other such attachments, shall not be used. §1926.251(b)(3).
- When U-bolts are used for eye splices, the U-bolts shall be applied so that the "U" section is in contact with the dead end of the rope. §1926.251(c)(5)(i).
- When U-bolt wire rope clips are used to form eyes, the following table shall be used to determine the number of spacing of clips.

NUMBER AND SPACING OF U-BOLTS

WIRE ROPE CLIPS

IMPROVED PLOW STEEL, ROPE	<u>NUMBER OF CLIPS</u>		<u>MINIMUM</u>	DIAMETER INCHES
	DROP	OTHER	SPACING	
1/2.....	3	4		
3/8.....	3	4		
3/4.....	4	5		
4 1/2.....	4	5		
5/8.....	4	5		
5/4.....	5	6		
6.....	5	6		
1.....	5	6		
1 1/8.....	6	6		
6 3/4.....	6	6		
1 1/4.....	6	7		
7 1/2.....	6	7		



13/8.....	7	7
8¼		
1½.....	7	8
9		

§1926.251(c)(5).

64. Woodworking Machinery

- All fixed power-driven woodworking tools shall be provided with a disconnect switch that can be either locked or tagged in the off position. §1926.304(a).



Number 3 - Bloodborne Pathogens Exposure Control Plan

In accordance with the OSHA's Bloodborne Pathogens standard, 29 CFR §1910.1030, the following exposure control plan has been developed for Alpine Painting and Restoration .

A. Exposure Determination

OSHA requires employers to perform an exposure determination concerning those employees who may incur occupational exposure to blood or other potentially infectious materials. The exposure determination is made without regard to the use of personal protective equipment. In other words, employees are considered to be exposed even if they wear personal protective equipment. This exposure determination is required to list all job classifications in which all employees may be expected to incur such occupational exposure, regardless of frequency. At this facility the following job classifications are in this category: _____

In addition, if there are job classifications in which some employees may have occupational exposure, then a listing of those classifications is required. Since not all the employees in these categories would be expected to incur exposure to blood or other potentially infectious materials, tasks or procedures that would cause these employees to have occupational exposure are also required to be listed in order to understand clearly which employees in these categories are considered to have occupational exposure. The job classifications and associated tasks/procedures for these categories are as follows:

Job Classification Tasks/Procedures

B. Implementation Schedule and Methodology

OSHA also requires that this plan also include a schedule and method of implementation of the various requirements of the standard. The following complies with this requirement:

C. Compliance Methods

Universal precautions will be observed at this facility in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.

Engineering and work practice controls, such as "sharps containers" to dispose of sharp objects, will be utilized to eliminate or minimize exposure to employees at this facility. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be utilized. At this facility the following engineering controls will be utilized: _____

The above controls will be examined and maintained on a regular schedule. The schedule for reviewing the effectiveness of the controls will be conducted on a basis (*insert frequency here, whether "daily", "weekly", "monthly", etc.*). The person who has the responsibility to review the effectiveness of the individual control is _____ .

Handwashing facilities are also available to the employees who incur exposure to blood or other potentially infectious materials. OSHA requires that these facilities be readily accessible after incurring exposure. At this facility handwashing facilities can be found at the following locations: _____

Whenever handwashing facilities are not feasible, either an antiseptic cleanser in conjunction with clean cloth or paper towels or antiseptic towelettes will be provided. If these alternatives are used then the hands are to be washed with soap and running water as soon as feasible.

After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.

If employees incur exposure to their skin or mucous membranes then those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

D. Needles

Contaminated needles and other contaminated sharps will not be bent, recapped, removed, sheared or purposely broken. OSHA allows an exception to this requirement if the procedure would require that the contaminated needle be recapped or removed and no alternative is feasible and the action is required by the medical procedure. If such action is required then the recapping or removal of the needle must be done by the use of a mechanical device or a one-handed technique. At this facility recapping or removing is only permitted for the following procedures: _____

CHECK ONE:

At this facility, a one-handed recapping/removal technique will be used. []

At this facility, a mechanical device will be used for recapping/removal. []

The mechanical device to be used is _____ .

E. Containers for Reusable Sharps

Contaminated sharps that are reusable are to be placed immediately, or as soon as possible, after use into appropriate sharps containers. At this facility the sharps containers are puncture resistant, labeled with a biohazard label, and are leak proof.

Sharps containers are to be found at the following locations: _____

The person who has responsibility for removing sharps from the containers is _____.

Containers will be checked to remove sharps on a (daily)(weekly)(monthly) basis.

Labeling Requirements

- Labels shall include the "Biohazard" symbol.
- Labels shall be fluorescent orange or orange-red or predominantly so, with lettering or symbols in a contrasting color.
- Labels required by affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.
- Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements.
- Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.
- Labels required for contaminated equipment shall be in accordance with the labeling requirements and shall also state which portions of the equipment remain contaminated.
- Regulated waste that has been decontaminated need not be labeled or color-coded.
- *Red bags or red containers may be substituted for labels.*

F. Work Area Restrictions

In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees are not to eat, drink, apply cosmetics or lip lipstick, smoke, or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present.

Mouth piping/suctioning of blood or other potentially infectious materials is prohibited.

All procedures will be conducted in a manner which will minimize splashing, spraying, splattering, and generation of droplets of blood or other potentially infectious materials. Methods which will be employed at this facility to accomplish this goal are: _____.

G. Specimens

Specimens of blood or other potentially infectious materials will be placed in a container which prevents leakage during the collection, handling, processing, storage, and transport of the specimens.

The container used for this purpose will be labeled or color coded in accordance with the requirements of the OSHA standard, 29 CFR §1910.1030.

Any specimens that could puncture a primary container will be placed within a secondary container which is puncture resistant. Specimens that could puncture a primary container are: _____.

The following containers are suitable for use as secondary containers: _____.

Secondary containers can be found at the following locations: _____.

If outside contamination of the primary container occurs, the primary container shall be placed within a secondary container which prevents leakage during the handling, processing, storage, transport, or shipping of the specimen.

H. Contaminated Equipment

Equipment which has become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless the decontamination of the equipment is not feasible. The following equipment cannot be decontaminated prior to servicing or shipping: _____.

J. Personal Protective Equipment

All personal protective equipment used at this facility will be provided without cost to employees. Personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or other potentially

infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

Protective clothing will be provided to employees in the following manner:

<u>Personal Protective Equipment</u>	<u>Task</u>
--------------------------------------	-------------

Glove

Lab Coat

Face Shield

Clinic Jacket

Protective Eyewear

(with solid side shield)

Surgical Gown

Shoe Covers

Examination Gloves

Other

All personal protective equipment will be cleaned, laundered, and disposed of by the employer at no cost to employees. All repairs and replacements will be made by the employer at no cost to employees. The person who has responsibility for distribution of personal protective equipment is_____.

All garments which are penetrated by blood shall be removed immediately or as soon as feasible. All personal protective equipment will be removed prior to leaving the work area. Employees are expected to place their personal protective equipment, upon leaving the work area at the following locations:_____.

Gloves shall be worn where it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes. The person who will be responsible for distribution of gloves is_____. Gloves will be used for the following procedures:_____.

Disposable gloves used at this facility are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised. Utility gloves may be decontaminated for re-use provided that the integrity of the glove is not compromised. Utility gloves will be discarded if

they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonably be anticipated. Situation at this facility which would require such protection are as follows: _____.

The OSHA standard also requires appropriate protective clothing to be used, such as lab coats, gowns, aprons, clinic jackets, or similar outer garments. The following situations require that such protective clothing be utilized: _____.

This facility will be cleaned and decontaminated according to the following schedule:

<u>Work Area</u>	<u>Cleaning Schedule</u>
------------------	--------------------------

Decontamination will be accomplished by utilizing the following materials such as bleach solutions or EPA registered germicides: _____.

All contaminated work surfaces will be decontaminated after completion of procedures and immediately or as soon as feasible after any spill of blood or other potentially infectious materials, as well as the end of the work shift if the surface may have become contaminated since the last cleaning.

All bins, pails, cans and similar receptacles shall be inspected and decontaminated on a regularly scheduled basis by .

Any broken glassware which may be contaminated will not be picked up directly with the hands. It shall be cleaned up using mechanical means such as brushand dust pan, tongs, or forceps.

J. Regulated Waste Disposal

All contaminated sharps shall be discarded as soon as feasible in sharps containers which are located in the facility. Sharps containers are to be found at the following locations: _____.

Regulated waster other than sharps shall be placed in appropriate containers. Such containers are to be found in the following locations: _____.

K. Laundry Procedure

Laundry contaminated with blood or other potentially infectious materials will be handled as little as possible. Such laundry will be placed in appropriately marked

bags at the location where it was used. Such laundry will not be sorted or rinsed in the area of use.

All employees who handle contaminated laundry will utilize personal protective equipment to prevent contact with blood or other potentially infectious materials.

Laundry at this facility will be cleaned at _____. If the laundry is being sent off site, then the laundry service accepting the laundry is to be notified.

L. Hepatitis B Vaccine

All employees who have been identified as having exposure to blood or other potentially infectious materials will be offered the Hepatitis B vaccine, at no cost to the employee. The vaccine will be offered within 10 working days of their initial assignment to work involving the potential for occupational exposure to blood or other potentially infectious materials unless the employee has previously had the vaccine or who wishes to submit to antibody testing which shows the employee to have sufficient immunity.

Employee who decline the Hepatitis B vaccine will sign a waiver which uses the wording in Appendix A of the OSHA standard.

Hepatitis B Vaccine Waiver:

"I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination serious at no charge to me."

Employees who initially decline the vaccine but who later wish to have it may then have the vaccine provided to no cost.

M. Post-Exposure Evaluation and Follow-up

When the employee incurs an exposure incident, it should be reported to_____.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up in accordance with the OSHA standard.

This follow-up will include the following:

- documentation of the route of exposure and the circumstance related to the incident.

- if possible, the identification of the source individual and, if possible, the status of the source individual. The blood of the source individual will be tested (after consent is obtained) for HIV/HBV infectivity.
- result of testing of the source individual will be made available to the exposed employee with the exposed employee being made aware about the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- the employee will be offered the option of having blood collected for testing of the employees' HIV/HBV serological status. The blood sample will be preserved for at least 90 days to allow the employee to decide if the blood should be tested for HIV serological status. However, if the employee decides prior to that time that testing will be conducted then appropriate action can be taken and the blood sample discarded.
- The employee will be offered post exposure prophylaxis in accordance with the current recommendations of the U.S. Public Health Service.
- The employee will be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee will also be given information on what potential illnesses to be alert for and to report any related experiences to appropriate personnel.
- The following person(s) has been designated to assure that the policy outline here is effectively carried out as well as to maintain records related to this policy:

N. Interaction With Health Care Professionals

A written opinion shall be obtained from the health care professional who evaluates employees of this facility. Written opinion will be obtained in the following instances:

- 1) When the employee is sent to obtain the Hepatitis B vaccine.
- 2) Whenever the employee is sent to a health care professional following an exposure incident.

Health care professionals shall be instructed to limit their opinion to:

- 1) Whether the Hepatitis B vaccine is indicated and if the employee has received the vaccine, or for evaluation following an incident,
- 2) That the employee has been informed of the results of the evaluation, and
- 3) That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials. (Note that the written opinion to the employer is not to reference any personal medical information).

O. Training

Training for all employees will be conducted prior to initial assignment to tasks where occupational exposure may occur. Training will be conducted by a person who is knowledgeable in the subject matter and familiar with the elements of this program. A question and answer session with the trainer must also be made available.

Training for employees will include the following explanation of:

- 1) The OSHA standard for Bloodborne Pathogens
- 2) Epidemiology and symptomatology of bloodborne disease
- 3) Modes of transmission of bloodborne pathogens
- 4) This Exposure Control Plan, (i.e. points of the plan, lines of responsibility, how the plan will be implemented, etc.)
- 5) Procedures which might cause exposure to blood or other potentially infectious materials at this facility
- 6) Control methods which will be used at the facility to control exposure to blood or other potentially infectious materials.
- 7) The types, proper use, locations, removal, handling, decontamination and disposal of personal protective equipment available at this facility and who should be contacted concerning selection of such equipment
- 8) Post Exposure evaluation and follow-up
- 9) Signs and labels used at the facility
- 10) Hepatitis B vaccine program at the facility
- 11) Exposure emergency procedures including reporting medical follow-up and post-exposure evaluation.

All employees will receive annual refresher training. (*Note that this training is to be conducted within one year of the employees' previous training.*)

The outline for the training material is located (*list where the training materials are located.*)

P. Recordkeeping

All records required by the OSHA standard will be maintained by: _____.

Training Records. *Training records shall include the following information:*

The dates of the training sessions;

The contents or a summary of the training sessions;

The names and qualifications of persons conducting the training;

The names and job titles of all persons attending the training sessions.

The records shall be maintained for 3 years from the date on which the training occurred.

Q. Annual Plan Review

This plan will be reviewed and updated at least annually and also whenever new or modified tasks increase exposures. Copies of this plan are to be made available to OSHA representatives upon request.

Date of last revision: _____.



REVISED PROTOTYPE NO. 4 SEXUAL HARASSMENT POLICY (Revised 12-9-93)

Sexual harassment will not be tolerated by (*insert your company name*). Sexual harassment creates an unproductive work environment, is bad for business and is against the law. Alpine Painting and Restoration is committed to a workplace that is free from sexual harassment:

- By supervisors toward employees,
- Between co-workers, and
- By non-employees in the workplace, including customers, clients, suppliers, and employees of other contractors.

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature will be considered by Alpine Painting and Restoration to be sexual harassment when:

- Submission to such conduct is made either explicitly or implicitly a term or condition of a person's employment,
- Submission to such conduct or rejection of such conduct by a person is used as the basis for employment decisions affecting the person or
- Such conduct has the purpose or effect of unreasonably interfering with an employee's work performance or creating an intimidating, hostile, or offensive working environment. Such an abusive work environment, even one that does not seriously affect an employee's psychological well-being, can and often will detract from an employee's job performance, discourage employees from remaining on the job, or keep them from advancing their careers.

Moreover, where employment opportunities or benefits are granted because of a person's submission to sexual advances or request for sexual favors from the

employer, its agents, or supervisors, Alpine Painting and Restoration will also consider any sex discrimination against other persons who were qualified for but denied that employment opportunity or benefit to be sexual harassment.

Sexual harassment will be analyzed by Alpine Painting and Restoration in light of the following types of conduct:

- **Non-verbal conduct**, such as leering, whistling or the exhibition of offensive photographs, drawings or other printed materials.
- **Verbal conduct**, such as suggestive comments, jokes, language as well as rumors and innuendo.
- **Physical conduct**, such as touching, pinching, brushing up against another person and assault.

Moreover, sexual harassment will be analyzed to determine:

- Whether the alleged conduct creates an objectively hostile or abusive work environment (one that a reasonable person would find to be hostile or abusive) and
- Whether the alleged victim of sexual harassment perceives the work environment to be abusive.

Any employee who believes that he or she has been sexually harassed, should report the harassment to either of the two Equal Employment Opportunity (EEO) counselors at Alpine Painting and Restoration . The EEO counselors are:

Mr. _____ Ms. _____

Telephone _____ Telephone _____

In addition, the President of Alpine Painting and Restoration is always accessible to any employee who has a sexual harassment complaint. The president of Alpine Painting and Restoration is: _____.

Telephone: _____.

All sexual harassment complaints will be handled confidentially and investigated promptly within 24 hours. All complaining employees will be interviewed. The alleged harasser will be interviewed. Any witnesses will be interviewed. All evidence will be evaluated.

Relevant factors to be considered in determining whether a "hostile" or "abusive" work environment exists include:

- Frequency of the discriminatory conduct,
- Whether the conduct is physically threatening or humiliating, or a mere offensive utterance; and

- Whether the discriminatory conduct unreasonably interferes with any employee's work performance to the extent that the conduct makes it more difficult for any employee to perform his or her job.

If no case for sexual harassment is found, an explanation will be given to the complaining employee as to how such a determination was made. Moreover, false accusations will not be condoned. No retaliatory action, however, will be permitted against a complaining employee and every complaint will be taken seriously.

If a case for sexual harassment is found, a written apology will be provided by Alpine Painting and Restoration to the complaining employee. Any form of discipline, up to and including termination, may be imposed upon the alleged sexual harasser.



Number 6 - Assured Equipment Grounding Conductor Program

In addition to any other OSHA requirements for equipment grounding conductors, Alpine Painting and Restoration will use either:

- Grounding fault circuit interrupters (GFCI) on all 120-volt, single-phase, 15 and 20 ampere receptacle outlets on construction sites, which are not part of the permanent wiring of the building or structure. This option also extends to any receptacle outlets that are connected to the permanent wiring of the building via extension cords.
- Or, alternatively, or even in conjunction with the use of GFCIs, an assured equipment grounding conductor program will be used on construction sites covering all cord sets, receptacles which are not part of the building or structure (including any receptacle outlets that are connected to the permanent wiring of the building via extension cord), and equipment connected by cord and plug that is being used by employees or is merely available for employee use.

A. Assured Equipment Grounding Program Procedures

Alpine Painting and Restoration designates the following person or persons at this jobsite to be "competent persons" responsible for implementing the inspection and testing procedures of the program_____.

Alpine Painting and Restoration will not make available or permit the use of any equipment that has not been inspected and tested under this program.

B. Daily Inspection Procedures

Before each day's use, a visual inspection for external defects (such as deformed or missing pins or insulation damage) and for indications of possible internal damage shall be conducted:

- on each cord set
- on each attachment cap

- on each plug and receptacle of cord sets (except cord sets and receptacles that are fixed and not exposed to damage)

Equipment found damaged or defective will not be used until it is repaired.

C. Quarterly Testing Procedures

All cord sets, all receptacles that are not part of the permanent wiring of the building (including any equipment connected to permanent wiring via extension cords), and all cord and plug connected equipment required to be grounded will be tested in the following manner:

- All equipment grounding conductors will be tested for continuity. The conductors must be electrically continuous. This test may be conducted by using an "ohmmeter" for cord sets and cord and plug connected equipment. A "receptacle tester" may be used for receptacles. In any event, testing devices used must be able to ascertain electrical continuity.
- Each receptacle and attachment cap or plug will be tested for correct attachment or the equipment grounding conductor. The equipment grounding conductor must be connected to its proper terminal. Devices such as the ohmmeter or the receptacle tester may be used to conduct this testing.

D. Initial Testing Procedures

All required tests described in Section C of this program must be conducted before the first use of an equipment.

E. Return-To-Service Testing Procedures

All required tests described in Section C of this program must be conducted before equipment is returned to service following any repairs.

F. Semi-Annual Testing Procedures

Cord sets and receptacles that are fixed and not exposed to damage must be tested (as describe in Section C of this program) every six months.

G. Testing Register/Coding Schemes

All tests performed under this program must be recorded by logging test results into the "Assured Equipment Grounding Conductor Testing Register" and identifying all tested equipment by either color coded tape or by coded numbers according to the "Color Coding/Numeric Coding Scheme". Both the testing register and the color coding/numerical coding scheme are attached to this program. Moreover, the testing register, the coding schemes, and a copy of this program shall be made available to any employee or any OSHA official.

COLOR CODING/NUMERIC CODING SCHEMES

Month/Quarter Color Coding Scheme Numeric Coding Scheme

January February March	Quarterly White	Monthly White White & Yellow White & Blue	Monthly 1 2 3
April May June	Green	Green Green & Yellow Green & Blue	4 5 6
July August September	Red	Red Red & Yellow Red & Blue	7 8 9
October November December	Orange	Orange Orange & Yellow Orange & Blue	10 11 12
Repair or Incident	Brown	Brown	0

ASSURED EQUIPMENT GROUNDING CONDUCTOR PROGRAM

TESTING REGISTER

NAME: _____ JOB# _____
Date _____

Equipment Tested	Last Tested	Comments



Number 7 - Employee Exposure and Medical Record Policy

All employees of Alpine Painting and Restoration including former employees, representatives and OSHA officials, have a right to any employee exposure records or medical records that the company has a file.

Employee exposure records include: environmental records of jobsite monitoring or measuring of toxic substances, biological monitoring results, material safety data sheets (MSDS), and chemical inventories. Alpine Painting and Restoration will preserve and maintain all required employee exposure records for at least 30 years.

Employee medical records include: medical and employment questionnaires or histories, medical examination results, laboratory tests, X-rays, and other biological monitoring, medical opinions, first aid records, descriptions of treatments and prescriptions and employee medical complaints. Alpine Painting and Restoration will preserve and maintain all required employee medical records for the duration of each employee's employment plus thirty years.

All such records are kept at the offices of Alpine Painting and Restoration at *(insert your company address here)* and are available for inspection and copying during normal business hours. The person responsible for maintaining and providing these records is: _____ . Telephone number: _____.

In addition, a copy of the relevant OSHA standard, 29 CFR §1910.20, "Access to employee exposure and medical records", and its appendices, is kept at this jobsite and is available to all employees.

Number 8 - Primer on OSHA Inspection Procedures

All too often, construction field supervision and office management are taken aback by OSHA inspections in that the contractor or the contractor's personnel are unfamiliar with the ways of OSHA during the OSHA inspection process. The following outline is a primer on this process. Please read it now and refer to it when and if OSHA arrives at your jobsite.

OSHA'S ARRIVAL

When an OSHA inspector first arrives on the jobsite, your company safety director should be notified immediately.

OSHA's current operating procedures allow one hour for any firm to have someone get to the jobsite to participate in the OSHA walk around. Your company safety director or the person responsible for safety in your firm should be there.

However, it's necessary to decide whether your firm should insist that OSHA obtain a search warrant before conducting an inspection. If a search warrant is politely requested, OSHA may not bother with the trouble of obtaining one and may not return. If OSHA obtains a warrant, it may be days or even weeks before OSHA returns. Sometimes, OSHA will wait until you least expect the agency to return with a warrant, say, right before a holiday. Constant vigilance and good safety practices are in order.

There is no need to fear that OSHA will return with a vengeance. Insisting on a search warrant is a contractor's right under the United States Supreme Court decision in the *Barlow's, Inc.* case. The request, if made, should be made politely and stated as a matter of company policy. If it's obtained, a warrant will define the scope of OSHA's ability to inspect, both in location and in the number of days OSHA has to conclude its inspection.

Search warrants are not common in construction, however, because of the "open fields" doctrine. This exception to the Fourth Amendment to the United States Constitution provides that there is no constitutional violation if an OSHA inspector makes observations from areas on commercial premises that are out of doors and not closed off to the public.

Whether OSHA's inspection begins with the presentation of a search warrant or is agreed to voluntarily, it is in the firm's best interests to deal with the OSHA inspector in a courteous manner. Never argue with an OSHA inspector. This will only anger the OSHA inspector and motivate him or her to look harder for violations.

Although OSHA is under no obligation to give you a "Miranda"-like warning concerning any statements you may choose to make, this primer can certainly do so: Anything you say can and will be used by OSHA in its attempt to justify any citations issued to your company. Careful consideration ought to be given; therefore, to any response you give to questions posed by the OSHA inspector.

OPENING CONFERENCE

During the "Opening Conference", the OSHA inspector will likely distribute questionnaires to be completed by each firm on site. Although such questionnaires ask for routine data like company name, address, telephone numbers, etc., many contain questions concerning the company safety programs, safety training and safety inspections. Any improper entry onto the questionnaire usually guarantees that OSHA to sustain citations concerning safety programs will use the questionnaire itself as evidence. Would you hurriedly fill out IRS Form 1040 if an IRS agent came to your home and handed you one? Careful consideration ought to be given to innocent-looking OSHA questionnaires and the need not be completed hurriedly during the opening conference.

During the opening conference, the OSHA inspector will also explain the scope of inspection. You will learn at this time whether OSHA intends to conduct a thorough or "wall-to-wall" inspection or a limited inspection, covering only an employee complaint or an accident or catastrophe investigation. Any observation made by the OSHA inspector going to or coming from the area of limited inspection can be used by OSHA as the basis of citation that are beyond the scope of the complaint or investigation. OSHA inspectors, therefore, should be carefully escorted to and from the inspection area. At no time must the OSHA inspector be left free to wander around the jobsite by himself or herself.

EMPLOYER WALK-AROUND RIGHTS

There's a trend within OSHA today whereby OSHA inspectors are trying to limit the size of the inspection or "walk around" party. Each contractor on site has a right to participate in the OSHA inspection, under Section 8(e) of the Occupational Safety and Health Act of 1970. OSHA inspectors have been requesting that only representatives of the general contractor (GC) or construction manager (CM) participate in OSHA's inspection, with the proviso that subcontractors will be invited to join in when the walk around part gets to an area where the subcontractor's employees are working.

While this proposition may sound reasonable, it doesn't quite work out that way in practice and OSHA has been known to photograph and interview subcontractor employees without any notice being given to the subcontractor. The proposition is really a clever, deliberate and to-date successful ploy to circumvent subcontractor walk around privileges. Many GC's and CM's go along with the proposition thinking that the OSHA inspector will be upset if subcontractors insist upon their rights. Not to worry. Each contractor's walk around rights is protected by law (and in fact by OSHA's own regulations). By total subcontractor participation, everyone benefits because not only is the subcontractor liable for OSHA citations, the GC or CM is liable

also for violations involving subcontractor employees.

Walk Around Strategy

As indicated above, the OSHA inspector must never be allowed to roam your jobsite unattended. Therefore, two OSHA inspectors are on site and one wanders away from the walk around party, some management designate must accompany the second OSHA inspector.

If an apparent safety violation is discovered, you are under no obligation to agree with the OSHA inspector that a violation exists. Moreover, you are under no obligation to agree with the OSHA inspector's suggested means of corrective action. Many superintendents have found OSHA inspectors to write or testify later "the superintendent readily agreed that a hazard existed and readily agreed with my suggested abatement method". By all means, ask the OSHA inspector what corrective action is best in his opinion and, if feasible, follow through on his suggestion as soon as possible. This demonstrates good faith and may result in a lower penalty being calculated by OSHA. Agreeing with OSHA's opinions, however, is never advisable. Agreeing with an OSHA inspector will do nothing but help him prove a violation where no OSHA standard applies and may also prevent a possible "infeasibility" or "greater hazard" defense to a citation. Remember, the OSHA inspector is on site for one reason and one reason only: to gather as much information as possible to support citations against your company.

Private Employee Interviews

OSHA inspectors are fond of reminding contractors that OSHA has the right to interview employees privately and that Section 11(c) of the Occupational Safety and Health Act of 1970 prohibits any discrimination against employees for speaking to OSHA. Employees, however, may choose to decline to be interviewed by OSHA. Some OSHA inspectors are also fond of reminding employees that OSHA can obtain an administrative subpoena to force an interview. This is not often done, however, and OSHA's files are filled with entries like, "the employee refused to talk to the compliance officer and would not reveal his name, address and telephone number".

Any employee who is interviewed privately by an OSHA inspector should be debriefed soon afterwards. OSHA inspectors are notorious for twisting words and taking statement out of context.

Visual Documentation

OSHA inspectors will photograph jobsite scenes to help establish citations. You should immediately photograph the identical scenes. Please bear in mind that SOH inspectors will photograph a scene to OSHA's advantage. For example, a small pile of rubbish may be photographed close up in an attempt to prove a housekeeping violation. It is prudent, then, to photograph the scene to the contractor's advantage. For example, if a small pile of rubbish is photographed close up by OSHA on what is otherwise an uncluttered floor you should take a photograph depicting the entire scene.

It is not uncommon for OSHA inspectors to use video cameras on jobsites. OSHA encourages the use of video and a recent circuit court decision held that the agency was authorized to use videotaped evidence.

There's no reason why a contractor can't videotape as well. Again, the same principle applies: you should try to capture the entire scene because you can't count on OSHA

doing so. Some OSHA inspectors have been known to abuse videotape technology by videotaping a scene for a few fleeting seconds, then turning the video portion of the recorder off while keeping the audio portion on to allow for the OSHA inspector's commentary on what is going on at the time.

Closing Conference

After the OSHA inspector has complete his or her inspection, a "closing conference" is scheduled, usually in the GC's job trailer. The rule of thumb is not to volunteer information. OSHA inspectors are notorious for playing one contractor off against another and using remarks made at the closing conference to help prove violations.

Document Requests

At any stage of the process, OSHA may request certain documents, i.e., the contractor's written hazard communication program, OSHA Form 200, etc. Contractors are require to make many documentation available to OSHA upon request, although they are not required to give copies of their safety programs. Although OSHA's current policy is to calculate lower penalties for those contractors who have written safety programs, OSHA has been known to use such documents to help justify "willful" citations by showing that not only did the contractor violate a particular OSHA standard, he also knew of the requirements as evidence by something written in the safety program.

Perhaps a compromise approach is best taken: show the OSHA inspector that you have a written safety program but don't allow him to have a copy of it.



NO. 9- CERTIFICATION RECORD FOR EMPLOYEE FALL PROTECTION TRAINING

Alpine Painting and Restoration Provides a training program for each employee who may be exposed to fall hazards. This document verifies compliance with the training program by serving as a written certification record.

Moreover, this document verifies that the following employee(s) have been (1) trained, (2) re-trained, or (3) determined to have had previous training that was adequate pursuant to 29 C.F.R. § 1926.503(b).

2 Date of training, re-training or determination of adequacy of previous training:

2 Employee names:

2 Signature of employer or person who conducted the training_____:

This document shall be maintained wherever other important employee documents are maintained.



No. 10 - ACCIDENT AND ILLNESS INCIDENCE RATE CALCULATION

Occasionally, owners will request your "accident and illness incidence rate" for a given year or a number of years past. Sometimes called the "accident incidence rate" or the "OSHA incidence rate" or simply the "incidence rate," it is nothing more than a fraction derived from your OSHA Form 200 multiplied by 200,000. The numerator of this fraction will be the particular focus of a given incidence rate while the denominator will always be the number of hours worked by all employees during the year.

There are several ways you may be requested to compute this calculation. They may be on the basis of:

- (a) Total number of recordable injuries and illnesses for the year;
- (b) Number of injuries and illnesses that involved lost workdays for the year;
- (c) Number of lost workdays attributable to injuries and illnesses for the year;
- (d) Number of non-fatal injuries and illnesses without lost workdays for the year; and
- (e) Cases involving only injuries or only illnesses for the year.

(a) Calculation of incidence rate on the basis of total recordable cases:

Total number of injuries and illnesses in your firm for the year

x 200,000 = Total recordable incidence rate

Number of hours worked by all employees for the year

You will find the *total number of injuries and illnesses for the year* on your OSHA Form 200. Count the number of line entries of recordable cases from your Form 200 or refer to the "TOTALS" line from your Form 200 for the yearly total for fatalities,

injuries and illnesses (with lost workdays) and injuries and illnesses (without lost workdays). The columns from the OSHA Form 200 used for summing the total number of injuries and illnesses are: 1, 2, 6, 8, 9 and 13.

The *number of hours worked by all employees for the year* is generally available from your company's payroll or other time records. "Hours worked" should not include any non-work time, even though paid, such as vacation, sick leave, holidays, etc.

(b) Calculation of incidence rate on the basis of number of injuries and illnesses that involved lost workdays for the year:

Number injuries and illnesses that involve lost workdays for the year
Number of injuries and illnesses
x 200,000 = that involved lost workdays

Number of hours worked by all incidence rate employees for the year

The number of injuries and illnesses that involved lost workdays for the year can be found on OSHA Form 200. This number includes the number of line entries that involved either days away from work or days of restricted work activity, or both. Count those cases from your Form 200 which have a check in either column 2 (injuries) or column 9 (illnesses), or refer to the TOTALS line for the yearly total of injuries and illnesses with lost workdays.

(c) Calculation of incidence rate on the basis of the number of lost workdays attributable to injuries and illnesses for the year:

Number of lost workdays due to injuries and illnesses for the year
Number of lost workdays

x 200,000 = attributable to injuries

Number of hours worked by all and illnesses incidence rate employees for the year

The number of lost workdays attributable to injuries and illnesses is derived from columns 4, 5, 11 and 12 of the OSHA Form 200.

(d) Calculation of incidence rate on the basis of the number of non-fatal injuries and illnesses without lost workdays for the year:

Number of non-fatal injuries and illnesses without lost workdays
for the year

Number of non-fatal injuries and _____

x 200,000 = illnesses without lost workdays

Number of hours worked by all incidence rate employees for the year

The number of non-fatal injuries and illnesses without lost workdays is derived from columns 6 and 13 of OSHA Form 200.

(e) Calculation of incidence rate on the basis of cases involving only injuries and illnesses for the year:

Cases involving only injuries and illnesses in your firm for the year Cases involving only injuries and

x 200,000 = illnesses incidence rate

Number of hours worked by all employees for the year

Cases involving only injuries can be derived from columns 1, 2, and 6 of the OSHA Form 200. Cases involving only illnesses can be derived from columns 8, 9, and 13 of OSHA Form 200.



No. 11 - Lock-Out/Tag-Out System Procedures

I. General

The following sample lock-out procedure is provided to meet the requirements of OSHA's lock-out/tag-out standard at 29 CFR §1910.147. Each contractor on site should have its own identifiable locking system (for example, color coded). Also, keys should not be distributed freely on site.

When the energy isolating devices are not lockable, tagging-out may be used, provided the employer complies with the provisions of the standard, which require additional training and more rigorous periodic inspections. When tag-out is used and the energy isolating devices are lockable, the employer must provide full employee protection by implementation of additional safety measures such as:

- removal of an isolating circuit element
- blocking of a control switch
- opening of an extra disconnecting device
- removal of a valve handle to reduce the likelihood of inadvertent energization

Moreover, additional training and more rigorous periodic inspections are required. See, Section VII below. For more complex systems, more comprehensive procedures may need to be developed, documented and utilized.

II LOCK-OUT/TAG-OUT PROCEDURE

Lock-out procedure for: Alpine Painting and Restoration

III. Purpose

This procedure establishes the minimum requirements for the lock-out of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury.

IV. Compliance with the Program

All employees are required to comply with the restrictions and limitations imposed upon them during the use of lock-out. The authorized employees are required to perform the lock-out in accordance with this procedure. All employees, upon observing a machine or piece of equipment, which is locked out to perform servicing, or maintenance shall not attempt to start, energize or use that machine or equipment. Violations of this procedure will be disciplined in the following manner:

(type of compliance enforcement to be taken for violation of the above)

V. Sequence of Lock-out

1. Notify all affected employees that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.

(Name(s)/Job Title(s) of affected employees and how to notify)

- ☐ The authorized employees shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.

☐ Type(s) and magnitude(s) of energy_____

☐ Its hazards_____

☐ Methods to control the energy_____

3. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open switch, close valve, etc.)

☐ Type(s) and location(s) of machine or _____

- Equipment operating controls _____

☐ De-active the energy isolating device(s) with assigned individual lock(s).

☐ Type(s) and location(s) of energy isolating devices _____

2. Lock-out the energy isolating device(s) with assigned individual lock(s).

☐ Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, reposting, blocking, bleeding down, etc.

☐ Type(s) of stored energy-methods to dissipate or restrain _____

4. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

CAUTION: Return operating control(s) to neutral "off" position after verifying the isolation of the equipment.

- Method of verifying the isolation of the equipment _____

1. The machine or equipment is now locked out.
2. **VI. Restoring Equipment to Service**
3. When the service or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps should be taken:
4. Check the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items

- have been removed and the machine or equipment components are operationally intact.
5. Check the work area to ensure that all employees have been safely positioned or removed from the area.
 6. Verify that the controls are in neutral.
 7. Remove the lock-out devices and re-energized the machine or equipment.
 8. *NOTE*: The removal of some forms of blocking may require re-energization of the machine before safe removal.
 9. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

VII. Employee Training For Tag-Out System

Employees shall be trained to ensure that employees understand the purpose and function of the energy control program and that employees acquire the knowledge and skills required for the safe application, usage, and removal of the energy controls. The training shall include the following:

- Each authorized employee shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
- Each affected employee shall be instructed in the purpose and use of the energy control procedure.
- All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.
- When tag-out systems are used, employees shall also be trained in the following limitations of tags.
 - A. Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.
 - B. When a tag is attached to an energy isolating means, it is not to be removed

- without authorization of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated.
- C. Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, or order to be effective.
 - D. Tags and their means of attachment must be made of materials, which will withstand the environmental conditions encountered in the workplace.
 - E. Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.
 - F. Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

Employee Retraining

Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or processes that present a new hazard, or when there is a change in the energy control procedures.

Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever the employer has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

The retraining shall reestablished employee proficiency and introduces new or revised control methods and procedures, as necessary.

Notification of Employees

Affected employees shall be notified by the employer or authorized employee of the application and removal of lock-out devices or tag-out devices. Notification shall be

