S A F E T Y

S P E C I F I C A T I O N S

SAFETY IN CONSTRUCTION

Safety in all Bachmann Construction Company, Inc., operations is not a corporate goal, it is a requirement! To this end, we have formulated this written policy to govern all the operations of Bachmann Construction Company, Inc.

It is a condition of employment at Bachmann Construction Company, Inc., that all employees must adhere faithfully to the requirements of this policy and the safety rules, instructions, and procedures issued in conjunction with it. Failure to do so will result in disciplinary action as outlined in the attached policy.

It is a condition of all subcontracts and purchase orders issued by Bachmann Construction Company, Inc., that this policy and the safety rules, instructions, and procedures issued in conjunction with this policy, as well as all applicable state, federal, and local codes and regulations, be adhered to. Failure to comply is a breach of contract terms!

All visitors to any of Bachmann Construction Company's operations, including but not limited to suppliers, owner's representatives, agents of the architect or engineer, regulatory authorities, and insurance company representatives, shall be required to follow all safety rules and regulations in effect during their visit.

Bachmann Construction Company, Inc., will make an effort to ensure that the operations of other contractors not under our control do not endanger the safety of our employees. To this end, all employees are required to report hazardous activities of other employers to the appropriate Bachmann Construction Company, Inc., official(s).

The safety director, general superintendent, job superintendents, and foremen have the full backing of management to enforce the provisions of this policy as it relates to responsibilities assigned to them.

BACHMANN CONSTRUCTION COMPANY, INC.

GENERAL POLICY STATEMENT

It is the policy of Bachmann Construction Company, Inc., to provide a safe and healthful place of employment for ALL EMPLOYEES. It is the purpose of this policy to:

1. Abide by all federal, state, and local regulations as they pertain to construction.
2. Apply good sense and safe practices as dictated by locations, conditions, and circumstances to all jobs.
3. Exercise good judgment in the application of this policy.

Bachmann Construction Company's Management Shall …..

1. Establish rules and programs designed to promote safety.
2. Make known to all employees the rules established.
3. Require all subcontractors as a matter of contract to follow safety rules.
4. Encourage all prime contractors to work safely.
5. Record all instances of violations and investigate all accidents.
6. Discipline any employee willfully disregarding this policy.
7. Provide protective equipment for employees where required.
8. Inform employees of changes in safety rules.
9. Appoint a safety officer with full enforcement authority over safety matters.
10. Conduct safety inspections of all job sites and maintain records.
11. Provide all supervisors with copies of appropriate rules and regulations.

Bachmann Construction Company's Job Superintendents Shall …..

1. Be completely responsible for on-the-job safety and health.
2. Make sure proper safety materials and protective devices are available and used and all equipment is in safe working order.
3. Instruct foremen in safety requirements and make sure they pass on their instruction to their crews.
4. Take advantage of offered safety training and be aware of all safety rules.
5. Review all accidents, oversee correction of all unsafe practices, and file accident reports.
6. Conduct job site safety meetings.
7. Require conformance to safety standards from all subcontractors.
8. Notify office of all safety violations.
9. Provide all employees with proper instruction on safety requirements.
10. Keep an accurate daily log on forms provided by the company.
11. Conduct all weekly tool box talks.

Bachmann Construction Company's Foremen Shall …..

1. Carry out safety program at the work level.
2. Be aware of all safety requirements and safe working practices.
3. Report all injuries and safety violations.
4. Instruct new employees and existing employees performing new tasks in safe working practices.
5. Make sure protective equipment is available and used.
6. Secure prompt medical attention for any injured employees.
7. Make sure all work is performed in a safe manner and no unsafe conditions or equipment are present.
8. Provide their crew with proper instruction on safety requirements.

Bachmann Construction Company's Job Safety Coordinator Shall …..

1. Work with the general superintendent in corrective job site hazards.
2. Make periodic safety inspections and correct or initiate corrective procedures for problems discovered.
3. Follow all other safety requirements in the performance of other assigned duties.

Bachmann Construction Company's Workers Shall …..

1. Work safely.
2. Request help when unsure how to perform any task safely.
3. Report any unsafe acts to supervisor.
4. Work in such a manner as to ensure their safety as well as that of their co-workers.
5. Avail themselves of company and industry sponsored safety programs.
6. Use and maintain all safety devices provided to them.
7. Maintain and properly use all tools under their control.
8. Follow all safety rules.
9. Provide fellow employees help with safety requirements.
10. Report for work in clothing suitable for work and in such a manner that clothes and jewelry worn will not constitute a safety hazard.

Subcontractors and Suppliers of Bachmann Construction Company Shall …..

1. Abide by all safety rules of owner and other contractors
2. Notify all other contractors when actions or activities undertaken by them could affect health or safety of employees of other companies.
3. Check in with job site supervision before entering job site
4. Inform controlling contractor of all injuries to workers.
5. Report to controlling contractor any unsafe conditions that come to their attention.

Architects, Owners, and Visitors on Bachmann Construction Company's Projects Shall …..

1. Abide by all safety rules.
2. Check in with superintendent so protective equipment, such as hard hats, or eye and respirator protection, may be provided.
3. Refrain from entering construction areas without contacting employees working in those areas.

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All Personnel Shall …..

1. Strive to make all operations safe.
2. Maintain mental and physical health conducive to working safely.
3. Keep all work areas clean and free of debris.
4. Assess result of their actions on the entire work place. Work will not be performed in ways that cause hazards for others.
5. Replace or repair safety precautions removed or altered before leaving work area. Unsafe conditions will not be left to imperil others.
6. Abide by the safety rules and regulations of owner on their sites.
7. Work in strict conformance with OSHA regulations.
8. Report promptly to supervision all accidents and injuries observed whether involving company personnel or others.

BACHMANN CONSTRUCTION COMPANY, INC.

PROBLEM SOLVING PROCEDURE

To have an effective safety program, we will communicate both down and up corporate structure.

When a safety problem arises, everyone, even the least senior and experienced employee, has a responsibility to co-workers and the company to report or correct any hazardous conditions found. Every employee's concerns will be heard, and each situation will be corrected or a valid explanation tendered.

The following is Bachmann Construction Company's procedure for solving safety problems.

SAFETY PROBLEM SOLVING

It is the intent of Bachmann Construction Company, Inc., to provide a safe work place for all employees. Supervision personnel have been instructed to watch for and correct all unsafe conditions immediately. Construction sites are complex, and items are easily overlooked. It is important that all employees be on the lookout for unsafe conditions. If you observe a condition that is unsafe, the following actions are to be taken:

1. If possible, correct the condition immediately. Many safety hazards, like a piece of missing guardrail, are easy to correct.

2. If you are not able to take corrective action, report the condition to your immediate supervisor for correction.

3. All company employees with any supervisory responsibility have been instructed to take corrective action, or contact someone who can, when a safety concern is raised. In the event corrective action is not begun in a reasonable length of time, the employee is requested to contact Al Bachmann, who is also corporate safety director and can be reached at (608) 222-8869 or (608) 576-5901 (cell).

BACHMANN CONSTRUCTION COMPANY, INC.

DISCIPLINARY POLICY FOR SAFETY VIOLATIONS

Employees are expected to use good judgment when doing their work and to follow established safety rules. We have established a disciplinary policy to provide appropriate consequences for failure to follow safety rules. This policy is designed not so much to punish as to bring unacceptable behavior to the employee's attention in a way that the employee will be motivated to make corrections. The "Safety Concern Report" should be completed to record the infraction, document the employee/supervisor discussion, and identify proper future behavior.

The following consequences apply to a violation of the same rule or the same unacceptable behavior within one year:

First Instance:	Verbal warning, notation in employee file, and instruction on proper actions.
Second Instance:	1 day suspension, written reprimand, and instruction on proper actions.
Third Instance:	1 week suspension, written reprimand, and instruction on proper actions.
Fourth Instance:	Termination of employment.

Nothing in this policy prevents the immediate dismissal or removal from the job site of any employees or subcontractors whose conduct is a serious violation of the safety requirements and constitutes a grave danger to themselves, co-workers, property, equipment, or the employees of others.

JOB SITE REQUIREMENTS

Temporary Facilities

- GFCI's or assured grounding program
- Site/storage layout for placement of materials, shanties, equipment, etc.
- Communication system
- Water (including drinking water) and sanitary facilities
- Job site security equipment (fencing, lights, etc.)
- Temporary access and parking facilities

Paper Work Requirements

- Copy of OSHA standards and poster
- Posting area for employee notices
- Emergency phone numbers
- OSHA 200's (during February)
- Copy of assured grounding program (if in use)
- Maintenance records for equipment (cranes, material hoists, etc.)
- Contractors safety program and rules
- Approvals (deep trenches, high scaffolds, demo surveys, shoring, etc.)
- Proof of training and safety instructions (lasers, power-actuated tools, first aid, etc.)
- Written respiratory protection program (if respirators are in use)
- Required signs (Hard Hats, No Trespassing, Danger, Caution, etc.)
- Required special permits (burning, welding, traffic, etc.)
- Worker's comp notice, EEO, minimum wage, U/E posters
- Accident and treatment report forms

Emergency Needs

- First aid trained personnel
- First aid kit (checked at least weekly)
- Fire extinguishers (or water equivalent)
- Emergency evacuation plans

Protective Equipment

- Hard hats
- Safety glasses
- Respirators
- Ear plugs
- Guarding material for perimeter scaffolds and floor holes
- Safety cans for flammable liquids
- Tagged alloy steel chains when used for rigging
- Safety harnesses, lifelines, and lanyards or nets where fall hazard exists
- Trench and excavation shoring materials when necessary
- Personal protective equipment for visitors

General Safety Requirements

- Cleanup schedule and waste disposal facilities
- Safe access (stairs, ladders, etc.)
- Safety library – manufacturer's instructions, safety handbooks, data sheets, etc.
- Flashers, signals, barricades, and reflective clothing for traffic controls

MASONRY OPERATIONS

Scaffolding

- All scaffolding set on adequate level bearing
- All required bracing installed
- All guardrails, mid-rails, and toeboards in place
- All scaffolds fully planked
- Proper tie-ins to prevent tipping
- No defective scaffolding units
- Ladders in place and high enough

Equipment

- All guards in place – saws, mixers, others
- Forklift bells, horns, alarms, fully functional
- Fuel stored in safety cans
- GFCI's in up-to-date assured grounding program in use
- All cords of 3-wire type and in good operating condition

Personal Protective Equipment

- Hard hats worn by all
- Safety glasses worn at all times
- Dust masks available at saws
- Hearing protection available where required

General

- First aid personnel and equipment available
- Emergency phone numbers and phone available
- Material neatly and properly stored
- Good housekeeping practiced
- Sufficient fire extinguishers
- Proper light levels in work areas
- All hand tools in good working condition
- All floor and wall openings properly guarded
- All temporary heaters properly installed, maintained, and vented

IMPLEMENTATION

To implement fully the safety program, Bachmann Construction Company …..

1. Holds a supervisory meeting for all of its supervisors at least annually.

2. Prepares at least annually a detailed description of all accidents, including their causes and measures taken to prevent reoccurrence, for distribution to all supervisory personnel.

3. Uses the Standard Study to assign accident costs to projects as a graphic illustration of the high hidden costs of accidents and to serve as a supervisory training tool.

4. Requires weekly Tool Box Talk training sessions on all projects and documents the topics and attendance.

5. Actively participates in trade association sponsored safety programs.

6. Avails itself of the technical expertise available to it through the On-Site Consultation Service funded by OSHA.

7. Uses applicable resources and materials available to it through its insurance carrier.

8. Makes available to employees, free of charge, construction industry sponsored programs, including but not limited to First Aid, CPR, and Supervisory Training Programs.

9. Actively participates in safety programs available through membership in the AGC.

10. Uses the resources of its equipment and material suppliers to train its employees in the safe use of their equipment and materials.

11. Subscribes to safety periodicals to ensure up-to-date, sate-of-the-art information on safety.

12. Collects where possible Material Safety Data Sheets on materials in use by the company.

13. Distributes copies of pertinent OSHA regulations and other standards to supervisory personnel.

ACCIDENT INVESTIGATION

"Those who do not learn from the past are condemned to repeat it." Each and every accident must be investigated. An accident is any unplanned occurrence that could have caused injury or damage, not just occurrences that did. If a sling breaks and drops a load, it is an accident whether anyone was hurt or not.

Accidents should be investigated by immediate supervision. Results should be reported completely on a standard company form. Completely is the key. In today's world of litigation, an incomplete form is of no use three years down the road when the case comes to court.

The immediate supervisor's report should be reviewed by the safety director. Appropriate steps to prevent reoccurrence should be taken.

Accident reports highlight problem areas. Patterns can be detected and resources directed toward preventing a reoccurrence. Accident reports make excellent training tools. The causes and effects of accidents can be reviewed at safety meetings.

A complete accident report contains as a minimum –

1. Employee Information – Name, address, social security number, sex, marital status, occupation, and birth date.

2. Worksite Information – Address of job site, employee occupation, environmental conditions.

3. Accident Data – Information on what employee was doing, how the accident happened, who was injured and where. Diagram should be included.

4. Eyewitnesses – Names of eyewitnesses and their independent statements.

5. Safety Rules – What safety rules were in effect, what safety rules were not that should have been, and what could have been done to prevent the accident.

6. Analysis – Primary, secondary, and contributory causes of the accident.

7. Corrective Action – Steps to be taken to prevent reoccurrence of this or similar incidents.

BACHMANN CONSTRUCTION COMPANY, INC.

GENERAL WORK RULES

THIS IS NOT A COMPLETE LIST OF ALL APPLICABLE SAFETY RULES. IT IS INTENDED TO PROVIDE GENERAL GUIDANCE AND TO BE USED WHERE MORE SPECIFIC WORK PRACTICE GUIDES HAVE NOT BEEN ISSUED.

Abrasive Grinding

Abrasive wheel bench or stand grinders must have safety guards strong enough to withstand bursting wheels. Adjust work rests on grinders to a clearance not to exceed 1/8 inch between rest and wheel surface. Inspect and ring test abrasive wheels before mounting. Always leave wheel in working condition for next user. Properly dress wheel before using or/and when finished. Eye protection **must** be worn during abrasive grinding procedures.

The use of alcohol or controlled substances during working hours on any Bachmann Construction Company, Inc., project or at any Bachmann Construction Company, Inc., facility shall be cause for immediate dismissal. Any individual who reports for work under the influence of alcohol or other controlled substances shall not be allowed to work.

Air Tools

Secure pneumatic tools to hose in a positive manner to prevent accidental disconnection. Install and maintain safety clips or retainers on pneumatic impact tools to prevent attachments from being accidentally expelled. All hoses exceeding ½ inch inside diameter require safety devices at source of supply to reduce pressure in case of hose failure. Eye protection **must** be worn at all times when using or energizing pneumatic tools.

Asbestos

No work involving contact with asbestos-containing material will be performed without first contacting the general superintendent for clearance to perform the work. All work will be performed in accordance with applicable OSHA, EPA, and local regulations. Workers suspecting that the operations of other contractors are releasing asbestos fibers into the work environment are requested to notify supervisory personnel of their suspicions. Asbestos-containing materials **shall not** be handled by Bachmann Construction employees.

Belt Sanding Machines

Stationary belt sanders will not be used without guards in place. Eye protection **must** be worn during belt sanding procedures.

Confined Spaces

Work shall not be performed in confined spaces unless the atmosphere has been properly tested and adequate ventilation is available. Bachmann Construction employees **shall not** undertake confined entry procedures.

Compressed Air, Use of

Compressed air used for cleaning purposes may not exceed 30 psi and then only in conjunction with effective chip guarding the personal protective equipment. Exceptions to 30 psi are allowed only for concrete form, mill scale, and similar cleaning operations.

The use of compressed air to clean off yourself or other workers is not allowed.

Compressed Gas Cylinders

Put valve protection caps in place before compressed gas cylinders are transported, moved, or stored. Cylinder valves will be closed when work is finished and when cylinders are empty or being moved.

Compressed gas cylinders will be secured in an upright position at all times. Keep cylinders a safe distance or shield from welding or cutting operations and placed where they cannot become part of an electrical circuit. Oxygen and acetylene must not be stored together.

Oxygen and fuel gas regulators must be in proper working order while in use.

Concrete, Concrete Forms, and Shoring

Do not work above vertically protruding reinforcing steel unless it has been protected to eliminate the hazard of impalement.

Formwork and shoring will be designed and constructed to safely support all loads imposed during concrete placement. A qualified person shall review jack layout, formwork, shoring, working decks, and scaffolding systems.

Cranes or Derricks

Rated load capacities, recommended operating speeds, and special hazard warnings or instructions must be conspicuously posted on all equipment. Instructions or warnings must be visible from the operator’s station.

Accessible areas within swing radius of crane must be barricaded to prevent employees from being struck or crushed by the crane.

Except where electrical distribution and transmission lines have been de-energized and visibly grounded, or where insulating barriers not a 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 to 50kv or below; 10 feet + 4 inches for each 1kv over 50kv for lines rated over 50kv, or twice the length of the line insulator, but never less than 10 feet. Cranes will be inspected before each use by the operator. Any defects must be corrected before use. Logs of crane inspections must be kept with the crane.

Crane Suspended Work Platforms

Work platforms suspended from cranes will be used only with the permission of the general superintendent or safety director and then only in accordance with current OSHA regulations regarding their use.

Disposal Chutes

Use an enclosed chute whenever materials are dropped more than 20 feet to any exterior point of a building.

When debris is dropped through floor holes without a chute, the area where the material is dropped must be enclosed with barricades at least 42 inches high and not less that 6 feet back from projected edges of opening above. Post warning signs at each level.

Electrical – General

All extension cords must be 3-wire type, protected from damage, and not fastened with staples, hung from nails, or suspended from wires. No cord or tool with a damaged ground plug may be used. Worn or frayed cables may not be used.

Except where bulbs are deeply recessed in reflector, bulbs on temporary lights will be equipped with guards. Temporary lights may not be suspended by their electric cords unless so designed.

Receptacles for attachment plugs will be of approved, concealed contact type. Where different voltages, frequencies, or types of current are applied, receptacles must be such that attachment plugs are not interchangeable.

Each disconnecting means for motors and appliances and each service feeder or branch circuit at point of origin must be legibly marked to indicate its purpose, unless located and arranged so purpose is evident.

Cable passing through work areas will be covered or elevated to protect from damage. Boxes with covers for disconnecting means must be securely and rigidly fastened to mounting surface.

No employee may work in proximity to any electric power circuit that may be contacted during course of work unless protected against electric shock by de-energizing circuit and grounding it or by guarding with effective insulation. In work areas where exact location of underground electric power lines is unknown, workmen using jackhammers, bars, or other hand tools which may contact lines must wear insulated protective gloves.

Electrical – Grounding

Fifteen-ampere and 20-ampere receptacle outlets on single-phase, 120-volt circuits for construction sites, which are not a part of permanent wiring of the building or structure, must be protected by either ground-fault circuit interrupters or an assured equipment grounding conductor program.

An assured equipment grounding conductor program covers all cord sets, receptacles which are not part of the permanent wiring of the building or structure, and equipment connected by cord and plug.

Inspect each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage, before each day's use for external defects and possible internal damage. Remove from service or repair immediately any defective items.

Tests will be performed on all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and cord and plug-connected equipment required to be grounded. Grounding conductors will be tested for continuity. Each receptacle and attachment cap or plug will be tested for correct attachment of the equipment grounding conductor.

Tests will be recorded. This test record must identify each receptacle, cord set, and cord and plug-connected equipment that passed the test, and will indicate the last date it was tested and the interval for which it was tested. No electrical tool or cord may be used unless it has been tested according to company's assured grounding program. The noncurrent-carrying metal parts of fixed, portable, and plug-connected equipment must be grounded except those protected by an approved system of double insulation. The path form circuits, equipment, structures, and conduit or enclosures to ground must be permanent and continuous and have ample current carrying capacity.

Equipment Operation

No employee will operate electric, gas, or hand-powered tools or equipment unless familiar with the use of the item and safety precautions required. Supervision will provide necessary safety information for all tasks and equipment.

Excavating and Trenching

Before opening any excavation, efforts, including utility company contact, must be made to determine if there are underground installations in the area. Underground facilities must be located and supported during excavation operations.

Walls and faces of trenches 5 feet or more in depth, and all excavations in which employees are exposed to danger from moving ground or cave-in, must be guarded by shoring or sloping.

Where employees may be required to enter excavations, excavated material must be stored at least 2 feet from excavation edge.

Make daily inspections of excavations. If evidence of possible cave-ins or slides is apparent, cease all work in excavation until precautions have been taken.

Trenches 4 feet deep or more require adequate means of exit such as ladders or steps, located so as to require no more than 25 feet of lateral travel.

Eye and Face Protection

Eye protection will be provided and **must** be worn at all times on construction sites.

Face protection will be provided when machines or operations present potential face injury.

Employees exposed to laser beams must use suitable laser safety goggles which will protect for the specific wave length of the laser and be optical density (O.D.) adequate for the energy involved.

Goggles will be worn over any employee-owned prescription glasses that do not meet industrial safety standards.

Fire Protection

Fire fighting equipment must be conspicuously located and readily accessible at all times, and periodically inspected and maintained in operating condition. Report any inoperative or missing equipment to supervision.

If the project includes automatic sprinkler protection, installation will closely follow construction and be placed in service, as soon as applicable laws permit, following completion of each story.

Fire extinguishers, rated not less than 2A, will be provided for each 3,000 square feet of building area (or major fraction). Travel distance from any point to the nearest fire extinguisher may not exceed 100 feet with at least one extinguisher per floor.

In multi-story buildings, at least one fire extinguisher must be located adjacent to stairway.

Flagmen

When signs, signals, and barricades do not provide necessary protection on or adjacent to a highway or street, flagmen or other appropriate traffic controls may be used. Flagmen will wear a red or orange warning garment. Warning garments worn at night will be of reflectorized material.

Flammable and Combustible Liquids

Only approved containers and portable tanks will be used for storage and handling of flammable and combustible liquids.

No more than 25 gallons of flammable or combustible liquids may be stored in a room outside of an approved storage cabinet.

No more than 60 gallons of flammable or 120 gallons of combustible liquids may be stored in any one storage cabinet.

No more than three storage cabinets may be located in a single storage area. Inside storage rooms for flammable and combustible liquids must be of fire-resistive construction, with self-closing fire doors, 4-inch sills or depressed floors, a ventilation system of at least six air changes per hour, and electrical wiring and equipment approved for Class 1, Division 1 locations.

Storage in containers outside buildings may not exceed 1,100 gallons in any one pile or area. Grade storage areas to divert possible spills away from building or other exposures, or surround with a curb or dike. Locate storage areas at least 20 feet from any building and keep free from weeds, debris, and other combustible materials.

Keep flammable liquids in closed containers when not in use.

Post conspicuous and legible signs prohibiting smoking in service and refueling areas.

Floor Openings, Open Sides, Hatchways, Etc.

Guard openings with standard guardrails and toeboards or cover. Provide railing on all exposed sides, except at entrances to stairways.

Every open-sided floor or platform, 6 feet or more above adjacent floor or ground level, must be guarded by a standard railing, or equivalent, on all open sides except where there is entrance to a ramp, stairway, or fixed ladder.

Runways 4 feet or more high need standard railings on all open sides.

Guard ladderway floor openings or platforms with standard guardrails and standard toeboards on all exposed sides, except at entrance to opening, with passage through the railing provided by a swinging gate or offset so a person cannot walk directly into opening.

Temporary floor openings will have standard railings or effective covers.

Floor holes into which persons can accidentally walk will be guarded by either a standard railing with standard toeboard on all exposed sides, or a standard floor hole cover.

While the cover is not in place, the floor hole will be protected by a standard railing.

Gases, Vapors, Fumes, Dusts, and Mists

Exposure to toxic gases, vapors, fumes, dusts, and mists at a concentration above those specified in the "Threshold Limit Values of Airborne Contaminants" of the ACGIH should be avoided.

When engineering and administrative controls are not feasible to achieve full compliance, protective equipment or other protective measures will be used to keep the exposure of employees to air contaminants within the limits prescribed. Any equipment and technical measures used for this purpose must be reviewed for each particular use by a technically qualified person. Employees will wear all furnished equipment at all times.

Hand Tools

Employees will not use unsafe hand tools.

Wrenches may not be used when jaws are sprung to the point slippage occurs. Keep impact tools free of mushroomed heads. Keep wooden tool handles free of splinters or cracks and tight in the tool.

Electric power operated tools will either be approved double insulated, be properly grounded, or used with ground fault circuit interrupters.

Hard Hats

Hard hats **must** be worn at all times on construction sites.

Exceptions to the hard hat requirement may be granted on a case-by-case basis but must be in written form. Consult with corporate Safety Director.

Hearing Protection

Hearing protection will be worn in areas where sound levels may exceed 85 decibles.

Heating Devices, Temporary

Fresh air must be present in sufficient quantities to maintain safety of workers. Solid fuel salamanders are prohibited in buildings and on scaffolds.

Hoists, Material and Personnel

Rated load capacities, recommended operating speeds, and special hazard warnings or instructions posted on cars and platforms may not be exceeded. Material hoistway entrances will be protected by substantial full width gates or bars. Hoistway door or gates of personnel hoists will be not less than 6 feet, 6 inches high, and be protected with mechanical locks which cannot be operated from the landing site and are accessible only to persons on the car. Provide overhead protective covering on the top of the hoist cage or platform.

Horseplay

Horseplay and practical jokes are not allowed and can result in immediate disciplinary action.

Housekeeping

Form and scrap lumber with protruding nails and all other debris will be kept clear from work areas. Remove combustible scrap and debris at regular intervals. Containers will be provided for collection and separation of all refuse. Covers are required on containers used for flammable or harmful substances.

At the end of each portion of work, return all tools and excess material to proper storage. Clean up all debris before moving on to next phase.

Illumination

Construction areas should be lighted to not less than minimum illumination intensities listed while work is in progress.

Foot-Candles: Area of Operation

5 General construction area lighting. General construction areas, concrete placement, active storage areas, loading platforms, refueling, and field maintenance areas and stairways.

5 Indoor: warehouse, corridors, hallways, and exitways.

10 General construction plant and shops (e.g.; batch plants, screening plants, mechanical and electrical equipment rooms, carpenter shops, rigging lofts and active storerooms, mess halls, indoor toilets, and workrooms).

Jointer

Each hand-fed planer and jointer with a horizontal head must be equipped with a cylindrical cutting head. Keep opening in the table as small as possible. Each hand-fed jointer with a horizontal cutting head must have an automatic guard to cover the section of the head on working side of fence or cage. Guards may not be removed.

A proper jointer guard will automatically adjust itself to cover unused portion of the head, and will remain in contact with material at all times. Each hand-fed jointer with horizontal cutting head must have a guard which will cover the section of the head back of the cage or fence.

Ladders

The use of ladders with broken or missing rungs or steps, broken or split side rails, or with other faulty or defective construction is prohibited. When ladders with such defects are discovered, withdraw them from service immediately. Place portable ladders in a substantial base at a 4-1 pitch, have clear access at top and bottom, extend a minimum of 36 inches above landing, or where not practical, provide grab rails. Secure against movement while in use.

Portable metal ladders may not be used for electrical use or where they may contact electrical conductors.

Job-made ladders will be constructed for their intended use. Cleats will be inset into side rails ½ inch, or filler blocks used. Cleats will be uniformly spaced 12 inches, top-to-top.

Lasers

Only trained employees will be allowed to operate lasers. Employees will wear proper eye protection where there is a potential exposure to laser light greater than 0.005 watts(5 milliwatts).

Beam shutters or caps will be utilized, or laser turned off, when laser transmission is not actually required. When lasers are left unattended for a substantial period of time, turn them off.

Liquified Petroleum Gas

Each system will have containers, valves, connectors, manifold valve assemblies, and regulators of an approved type.

Every container and vaporizer must be provided with one or more approved safety relief valves or devices. Containers will be placed upright on firm foundations or otherwise firmly secured.

Portable heaters must be equipped with an approved automatic device to shut off the flow of gas in event of flame failure. Storage of LPG within buildings is prohibited. Storage locations must have at least one approved portable fire extinguisher, rated not less than 20-B.C.

Medical Services and First Aid

When a medical facility is not reasonably accessible, a person trained to render first aid will be available at the worksite.

First aid supplies must be readily available.

The telephone numbers of physicians, hospitals, or ambulances must be conspicuously posted.

Motor Vehicles and Mechanized Equipment

Check all vehicles in use at beginning of each shift to assure that all parts, equipment, and accessories affecting safe operation are in proper operating condition and free from defects. All defects shall be corrected before placing vehicle in service.

No employee shall use any motor vehicles, earthmoving, or compacting equipment having an obstructed view to the rear unless: vehicle has a reverse signal alarm distinguishable from surrounding noise level, or vehicle is backed up only when an observer signals it is safe to do so.

Heavy machinery, equipment, or parts thereof which are suspended or held aloft will be substantially blocked to prevent falling or shifting work under or between them.

No person shall operate a motor vehicle on a public highway without a valid driver's license.

Personal Protective Equipment

The employee is responsible for wearing appropriate personal protective equipment in operations where there is exposure to hazardous conditions or where need is indicated to reduce hazards.

Lifelines, safety harnesses, and lanyards will be used for employee safeguards. Employees working over or near water, where danger of drowning exists, will wear U.S. Coast Guard approved life jackets or buoyant work vests.

Power-Actuated Tools

Only trained employees will be allowed to operate power-actuated tools. All power-actuated tools will be tested daily before use, and all defects discovered before or during use will be corrected. Tools will not be loaded until immediately before use. Loaded tools will not be left unattended.

Power Transmission, Mechanical

Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded if such parts are exposed to contact by employees or otherwise constitute a hazard. No equipment may be used without guards in place.

Railings

A standard railing will consist of top rail, intermediate rail, toeboard, and posts, and have a vertical height of approximately 42 inches from upper surface of top rail to floor, platform, etc. The top rail of a railing will be smooth-surfaced, with a strength to withstand at least 200 pounds. The intermediate rail will be approximately halfway between top rail and floor.

A stair railing will be of construction similar to a standard railing, but the vertical height will not be more than 34 inches nor less than 30 inches from upper surface of top rail to surface of tread in line with face of riser at forward edge of tread.

Respiratory Protection

In emergencies, or when feasible engineering or administrative controls are not effective in controlling toxic substances, approved respiratory protective equipment will be provided and used.

Respiratory protective devices will be approved for the hazardous material involved and extent and nature of work requirements and conditions.

Employees required to use respiratory protective devices will be thoroughly trained to their use. Respiratory protective equipment will be inspected regularly and maintained in good condition.

Rollover Protective Structures (ROPS)

Rollover protective structures (ROPS) standards apply 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.

Safety Nets

Safety nets are required when workplaces are more than 25 feet above the surface and the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety harnesses is impractical.

Safety Programs

The company makes available, free of charge, safety training programs covering construction hazards. All employees are requested to actively participate in these programs.

Saws

All portions of band saws blades will be enclosed or guarded, except for working portion of blade between bottom of guide rolls and table.

Portable, power-driven circular saws will be equipped with guards above and below the base plate or shoe.

The lower guard will cover the saw to depth of teeth, except for minimum arc required to allow proper retraction and contact with the work, and will automatically return to covering position when blade is removed from the work.

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

All swing or sliding cut-off saws will be provided with a hood that will completely enclose upper half of saw. Limit stops will be provided to prevent swing or sliding type cut-off saws from extending beyond front or back edges of the table. Each swing or sliding cut-off saw will be provided with an effective device to return saw automatically to back of table when released at any point of its travel.

Inverted sliding cut-off saws will be provided with a hood that will cover the part of the saw that protrudes above top of the table or material being cut.

Circular table saws will have a hood over portion of saw above the table, so mounted that the hood will automatically adjust itself to thickness of, and remain in contact with, material being cut. Circular table saws will have a spreader aligned with the blade, spaced no more than ½ inch behind largest blade mounted in saw. Circular table saws used for ripping will have nonkickback fingers or dogs. Feed rolls and blades of self-feed circular saws will be protected by a hood or guard to prevent hands of operator from coming in contact with in-running rolls at any time.

Scaffolds (General)

Scaffolds will be capable of supporting 4 times maximum intended load and erected on sound, rigid footing, capable of carrying the maximum intended load without settling or displacement.

Guardrails and toeboards will be installed on all open sides and ends of platforms more than 10 feet above ground or floor, except needle beam scaffolds and floats which require the use of safety harnesses. Scaffolds 4 feet to 10 feet in height, having a minimum dimension in either direction of less than 45 inches, will have standard guardrails installed on all open sides and ends.

There will be a screen with maximum ½ inch openings between toeboard and guardrail where persons are required to work or pass under scaffolds. Planking will be Scaffold Grade or equivalent as recognized by approved grading rules for species of wood used. Overlap scaffold planking a minimum of 12 inches or secure from movement.

Scaffold planks will extend over end supports not less than 6 inches nor more than 12 inches. Scaffolding and accessories with defective parts will be immediately replaced or repaired. Wherever possible, scaffold planks will be cleated.

Scaffolds (Mobile)

Platforms will be tightly planked for full width of scaffold except for necessary entrance opening. Platforms will be secured in place.

Guardrails made of lumber, not less than 2 x 4 inches (or equivalent) approximately 42 inches high, with a mid-rail of 1 x 6 inch lumber (or equivalent), and toeboards, will be installed at all open sides and ends on scaffolds more than 10 feet above ground or floor. Toeboards will be minimum 4 inches in height. Where persons are required to work or pass under scaffolds, install wire mesh between toeboard and guardrail.

Scaffolds (Swinging)

On suspension scaffolds designed for a working load of 500 pounds, no more than two men will be permitted to work at one time. On suspension scaffolds with a working load of 750 pounds, no more than three men may work at one time. Each employee will wear an approved safety harness attached to a lifeline. The lifeline will be securely attached to substantial members of the structure (not scaffold), or to securely rigged lines, which will safely suspend employee in case of a fall.

Scaffolds (Tubular Welded Frame)

Scaffolds will be properly braced by cross bracing or diagonal braces, or both, for securing vertical members together laterally. Cross braces will be of such length as will automatically square and align vertical members so the erected scaffold is plumb, square, and rigid. All brace connections will be made secure.

Stairs

Flights of stairs having four or more risers will be equipped with standard stair railings or handrails as specified below. On stairways less than 44 inches wide having one open side, at least one stair railing on the open side. On stairways less than 44 inches wide having both sides open, one stair railing on each side. On stairways more than 44 inches wide but less than 88 inches wide, one handrail in each enclosed side and one stair railing on each open side.

On all structures 20 feet or over in height, stairways, ladders, or ramps will be provided.

Rise height and tread width will be uniform throughout any flight of stairs.

Storage

All materials stored in tiers will be secured to prevent sliding, falling, or collapse.

Aisles and passageways will be kept clear and in good repair.

Stored materials will not obstruct exits. Materials will be sorted with due regard to fire characteristics.

Theft

Theft of any company-owned equipment or materials, or the unauthorized removal of equipment or materials from a job site, shall be cause for immediate dismissal.

Tire Cages

A safety tire rack, cage, or equivalent protection will be provided and used when inflating, mounting, or dismounting tires installed on split rims, or rims equipped with locking rings or similar devices.

Toilets

Toilets will 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.

Wall Openings

Wall openings, from which there is a drop of more than 4 feet, and the bottom of opening is less than 3 feet above working surface, will be guarded.

When the height and placement of the opening in relation to the working surface is such that a standard rail or intermediate rail will effectively reduce the danger of falling, one or both will be provided. The bottom of a wall opening, which is less than 4 inches above the working surface, will be protected by a standard toeboard or an enclosing screen.

Welding, Cutting, and Heating

Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention will be taken in areas where welding or other “hot work” is being done. No welding, cutting, or heating will be done where the application of flammable paints, or the presence of other flammable compounds or heavy dust concentrations creates a fire hazard. Equip torches with anti-flashback devices.

Arc welding and cutting operations will be shielded by noncombustible or flameproof shields to protect employees from direct arc rays.

When electrode holders are left unattached, electrodes will be removed, and holders will be placed or protected so they cannot make electrical contact. All arc welding and cutting cables will be completely insulated. There will be no repairs or splices within 10 feet of an electrode holder, except where splices are insulated equal to the insulation of the cable. Defective cable will be repaired or replaced.

Fuel gas and oxygen hoses must be easily distinguishable and not interchangeable. Inspect hoses at the beginning of each shift and repair or replace if defective.

General mechanical or local exhaust ventilation or air line respirators will be provided, as required, when welding, cutting, or heating hazardous materials or in confined spaces. Always wear approved tinted eye protection when welding or in areas where welding is being done.

Wire Ropes, Chains, Ropes, Etc.

Wire ropes, chains, ropes, and other rigging equipment will be inspected prior to use and as necessary during use to assure their safety. Remove defective rigging equipment from service immediately.

Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods, etc., or other such attachments, will not be used.

When U-bolts are used for eye splices, the U-bold will be applied so the “U” section is in contact with dead end of rope.

Woodworking Machinery

All fixed power-driven woodworking tools will be provided with a disconnect switch that can be either locked or tagged in off position.