ABR Al Bihar Fire Fighting & Safety Equipment Installation

Safety Manual

February 10, 2016

Foreword

This manual is intended to be used by company management and site supervisory personnel as a working procedure in the implementation and maintenance of our respective Construction Safety Program.

The program requirements are based on the potential safety hazards and operating losses to which the company had a foreseeable exposure on the date of publication of this manual. The manual will be revised as necessary to add requirements and procedures involving newly identified exposures.

Much safety related matters involve situation-specific factors which are difficult to anticipate. Accordingly, this program is not the definitive statement, or the only statement, on company safety concerns or procedures. This program is a starting point and a good-faith attempt to help create a safe working environment.

In every case, governmental rules, regulations or restrictions currently in effect or which may be published will be the minimum requirements which this program will meet or exceed.

We welcome and encourage your ongoing suggestions for improvement of this manual. We would also appreciate your sharing with us any ideas that have worked well for you.

Introduction

The construction industry is a hazardous occupation. The work requires alert minds, healthy bodies and the ability to carry on operations under difficult circumstances. Each operation presents its own peculiar problems, and no two jobs are alike; hence, it is not possible to formulate a set of rules which will cover all the hazards that may be encountered in construction work. Because conditions change constantly on construction sites, these conditions must be monitored constantly.

Safety to the worker, as well as to others, engaged on the same operation, is not only dependent upon total commitment from management, and the judgment of the superintendent or foreman in charge, but also on the individual workers themselves.

As a guide to workers in the safe conduct of their work, this program has been prepared from the experience gained over many years of construction. Its instructions and rules must be obeyed for the good of all workers. Proper safety devices and precautions must be used. Setting the tone for safety at the beginning of the project will pay off greatly throughout the job in terms of safety, quality, and schedule.

The safe way to do a job must always be found before going ahead. In the event no rule is found to cover the situation in question, contact the safety manager for specific instructions. Always use good common sense.

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1 ABR AL Bihar Safety and Accident Prevention Policy

The management of ABR Al Bihar Fire Fighting & Safety Equip. Inst. is committed to a strong construction safety program that protects its staff, its property, clients, subcontractors and suppliers, and the public from accidents. The management is also committed to the development of a program to ensure security, protection, and well-being of personnel and property at our office and jobsite.

Employees at every level, including management, are responsible and accountable for the company's overall safety initiatives. Complete and active participation by everyone, everyday, in every job is necessary for the safety excellence the company expects. Management supports coordination of safety among all workers on the jobsite.

Management supports participation in the program by all employees and provides proper equipment, training and procedures. Employees are responsible for following all procedures, working safety, and wherever possible, improving safety measures.

Management is committed to active leadership and supports the development of a program to prepare all personnel to care for victims in the event of an accident or sudden illness until professional help is available.

Our goal is to create and maintain an environment of Safety Excellence.

I trust that all of you will join me in a personal commitment to make safety a way of life.

The safety information in this policy does not take precedence over applicable Government Legislation in which all employees should be familiar.

Signed: _____ Date: _____
Khalid Yasin, Managing Director

1.1 Assignment of Responsibility and Accountability for Safety

A primary goal of ABR Al Bihar Fire Fighting & Safety Equip. Inst. is to conduct all operations as safely and efficiently as possible. To meet this goal, we are assigning the responsibility, authority, and accountability for safety to the management and other personnel within their areas of operations. Everyone associated with our projects has the responsibility of performing their work in a safe and efficient manner and to report immediately unsafe conditions and acts to their supervisor for correction.

Managing Director

1. Assumes the responsibility for the safety and health program and sees to it that the program remains successful.

2. Provides active support and participation.

3. Appoints a qualified Safety Manager.

4. Maintains safe working conditions, vehicles, equipment and operations.

5. Authorizes all necessary expenditures for safety based on safety laws, ordinances or recommendations of the safety committees, loss control personnel, or employee suggestions.

6. Regularly attends safety meetings to show interest, review the performance, and encourage the effectiveness of the safety policy.

7. Personally supports the program with a periodic safety letter to employees, safety award presentations, special events authorization and compliance with all rules.

8. Becomes familiar with major hazards of their overall operation.

Safety Manager

1. The Safety Manager must be thoroughly familiar with ABR Al Bihar Fire Fighting & Safety Equip. Inst. Safety Program and shall monitor the management responsibilities for safety as addressed in this book.

2. The Safety Manager must be familiar and stay current with the OH&S Regulations and use as a reference.

3. Where imminently dangerous conditions warrant, the Safety Manager, Project Manager, and Superintendent will have the authority to shut down the project or shut down a specific unsafe activity on the project.

4. Review all accidents with Superintendent, Project Manager, and employees and insure that the proper accident investigation procedures and corrective actions are taken.

5. Monitor job sites and functional areas along with Superintendent, Project Manager, and any other Elan employee who visits our job sites, to ensure adherence to the provision of ABR Al Bihar Fire Fighting & Safety Equip. Inst. Safety Program for all sections of our Company.

6. Communicate with Senior Management regarding the Project Managers and Superintendents performance on the project with respect to safety.

7. Direct the distribution of safety regulations and safety material.

8. Supervise, support, and direct the Safety Superintendent to insure his responsibilities are being carried out properly and thoroughly.

9. Act in a safety resource advisory capacity for the organization and generate ongoing improvements to ABR Al Bihar Fire Fighting & Safety Equip. Inst. Safety Program. This shall include publishing periodic safety letters.

10. Report on a monthly basis to the Managing Director regarding safety issues, topic, ideas, etc.

Project Manager

1. To provide information, instructions, and assistance to all supervisory staff in order to protect the health and safety of all our employees.

2. To understand and enforce our construction safety program as well as the occupational health and safety legislation.

3. To provide all supervisory staff with an understanding of our accident prevention program as well as relevant occupational health and safety legislation.

4. To provide all supervisory staff with proper, well maintained tools and equipment, plus any other special personal protective devices which may be required.

5. To provide ongoing safety education programs and approved first aid training courses as required.

6. To monitor departments and projects and hold them accountable for their individual safety performance.

Superintendent & Foreman

1. To know and apply our construction safety program and relevant occupational health and safety legislation.

2. To ensure that all employees are educated to work in a safe manner and that they use all protective devices and procedures required by this firm and by legislation to protect their health and safety.

3. To advise all employees at orientation they have the right to refuse any unsafe work (see 1.3 unsafe work policy) and of any potential or actual dangers and how to isolate, prevent, or remove them.

4. To arrange for medical treatment as required, in the case of injury or illness including transportation to a doctor as necessary.

5. To report all accidents immediately, to investigate all accidents fully, and to advise management on how to prevent similar accidents in the future.

6. To carry our regular inspections of the work place to ensure a safe and healthy environment.

7. Maintain good housekeeping onsite and in field offices.

Employee

1. To read, understand, and comply with this firm's safety policy, safe work practices, procedures, and rules.

2. To wear the safety equipment and personal protective devices and clothing required by ABR Al Bihar Fire Fighting & Safety Equip. Inst. and Occupational Health and Safety.

3. To notify his/her supervisor of any unsafe conditions or acts that may be of danger to other workers of himself/herself.

4. To report all accidents, injuries and incidents to his/her supervisor as soon as possible.

5. To take every reasonable precaution to protect the safety of other workers and himself/herself.

6. Maintain good health and advise his/her supervisor if any limiting health problems.

1.2 Statement of Policy - Subcontractors

The safety performance of each Subcontractor is equally as important as that of ABR Al Bihar Fire Fighting & Safety Equip. Inst. Each Subcontractor is responsible to ABR for the safe and healthful performance of all its work on this Project.

ABR has overall responsibility for all field construction safety and health matters on the Project. ABR shall hold each Subcontractor's management, supervisors, and employees as well as sub-subcontractors responsible for safety and health matters within the scope of their assigned or contracted work.

A copy of the ABR Al Bihar Fire Fighting & Safety Equip. Inst. Safety Handbook shall be given to each worker at a job orientation session. Attendance at ABR orientation session is mandatory for all workers and is a prerequisite to working on a ABR Al Bihar Fire Fighting & Safety Equip. Inst. Project.

Individual employers may wish to distribute information on safety guidelines and procedures in addition to this manual. In all cases, this manual is to be considered as a minimum requirement.

Each employer has the responsibility to provide a safe working environment for its employees, to provide clear instructions to employees about the tasks which they are to perform and to ensure that workers are trained or sufficiently skilled to safely do the work which they are instructed to perform.

Each employee has the responsibility to protect his/her own person and co-workers by performing work in a safe manner, to utilize all safety equipment which is specified to be required for the performance of the work and to report all unsafe working conditions or practices which become apparent.

Periodic safety audits will be made by ABR to determine if safe work procedures are being followed, however, the safety auditors are not directly responsible for worker safety. The responsibility for safety belongs to the individual worker and his/her employer.

Each employer has the responsibility of maintaining good housekeeping within the scope of their assigned or contracted work.

The ABR Supervisor or the safety designate shall ensure that the Subcontractor is taking every action possible to prevent accidents, and is complying with the laws, rules, and regulations of the ABR Safe work Procedures, and any governing legislation. This includes any Safe work Procedure that has been established specifically for this Project.

Signed: _____ Date: _____

Khalid Yasin, Managing Director

1.2.1 Subcontractors Responsibilities:

- Accept and implement ABR Al Bihar Fire Fighting & Safety Equip. Inst. overall Health and Safety Program;
- Read, understand and comply with the company's safety policies, practices, procedures, and occupational health and safety legislation;
- Wear the appropriate personal protective equipment and clothing for the task;
- Follow workplace medical and emergency preparedness procedures;
- Develop safe work procedures for their expertise level and have them reviewed and approved prior to work commencing;
- Complete and submit inspection reports and incident / near miss reports, reports must have a follow up date provided. Report any injury;
- Daily FLHA must be done and a copy given to the Site Superintendent;
- Hold or participate in toolbox safety meetings with their personnel at least once a week. Documented minutes and attendance at these meetings shall be forwarded to the Site Superintendent for review and action.
- Make suggestions for improvement;
- Take every reasonable precaution to protect the safety of themselves, other workers in the area and the general public.

1.2.2 Post-Project review of subcontractor safety performance and results

On conclusion of a project, ABR Al Bihar Fire Fighting & Safety Equip. Inst. will make a timely review of each subcontractor's safety performance, incident and injury experience, and other factors that will be helpful in evaluating the subcontractor's suitability for securing future contracts with ABR.

In the event that a subcontractor exits or is terminated from a project that remains in progress, a similar timely review will be preformed

Post-Project evaluations' will be performed by ABR Safety Manager in coordination with the Project Manager and the Site Superintendent who worked with the subcontractor during the specific project under review.

1.2.3 Subcontractors Weekly Safety Summary

Company Name: _____ Project Name_____

Date submitted _____Week Ending _____

 # Of Incidents: Lost Time Medical Aid First Aid Near Miss

_____ _____ _____ _____

 # Of Workers Currently on Modified Duties _____

 # Of Disciplinary Actions Taken Internal Subs

Warnings _____ _____
Suspensions _____ _____

#Of Superintendents & Foremen on the project _____

List of all "Sub" Subcontractors (attach "Sub" Sub's Safety Summary(ies) and submit as a package)

_____

_____

_____

_____

_____

Notes/Comments

_____

_____

_____

1.2.4 Subcontractor Incident Summary at the completion of the Project

Example	**Example**
Project Name	Oxford
Lost Time	0
Medical Aid	2
First Aid	2

Near Miss	1
# Workers on Modified Duties	1
# of Disciplinary Actions Taken	4
Warnings	4
Suspensions	4
#of Supervisors (Foremen) on Project	3
Subcontractors	Glenmore Fabricators
"Sub" Subcontractors	TMR Steel Erectors

1.3 Right to Refuse Unsafe Work Policy

The purpose of this policy is to establish procedural guidelines as per the Occupational Health & Safety Act for a work refusal.

ABR Al Bihar Fire Fighting & Safety Equip. Inst. is committed to the protection of its employee's, the environment, and its physical assets. Elan Construction Limited will continue to maintain a safe work environment in order to prevent occupational injuries.

All employees are equally responsible for complying with the requirements of the U.A.E Occupational Health & safety Act and its Regulations.

The Superintendent will advise all workers of their right to refuse unsafe work at orientation prior to starting work at the site.

It is the policy of ABR Al Bihar Fire Fighting & Safety Equip. Inst. to resolve health and safety concerns before a work refusal occurs and provide a uniform reporting procedure.

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Procedure:

Health and Safety Complaint:

In the event that a worker raises a health and safety concern or complaint to their Superintendent / Foreman, they shall:

1. Investigate in the presence of the worker and establish with the worker whether a health & safety issue exists and if it is a complaint or work refusal.
2. If determined to be a safety complaint and the task is unsafe the Superintendent / Foreman shall undertake immediate corrective action.

Health and Safety Work Refusal:

Workers have the right to refuse work which they have reason to believe is unsafe. As per the Occupational Health and Safety Act a worker may refuse to work or do particular work where he / she or another worker may be endangered by,

- Equipment, machine, device or things; or
- Physical condition of the workplace; or

- Equipment, machine, device or thing that is to be used or the physical condition of the workplace is in contravention of the Act or Regulations and may endanger himself / herself or another worker.

Should there be a work refusal the following procedures apply:

Step1:

1. Worker has reason to believe work or task is unsafe.
2. The report shall be made to the Superintendent / Foreman (preferably in writing) and should outline the worker's reason(s) for believing the work to be unsafe.
3. The worker shall remain in a safe place near his / her work station.
4. Superintendent / Foreman shall forthwith investigate in the presence of the worker.
5. The Superintendent / Foreman shall respond to the worker in writing, outlining remediation plan, the reasoning behind it.
6. Should the issue be resolved and corrective action taken, if required, the worker shall return to work. If the issue is not resolved proceed to step 2.

Step 2:

1. Following the investigation, should the worker have reasonable grounds to believe that the work or task continues to be unsafe, they must remain in a safe place near his or her work station and ABR's Safety Manager will be notified.
2. Other employees shall also be advised of the workers refusal and his or her reasons for the refusal.
3. The Safety Manager shall investigate in consultation with the Superintendent / Foreman and the employee that refused.
4. The Safety Manager shall give his / her decision, in writing, as soon as practicable to the employee including any applicable changes made in order to return the employee to their duties.

The documentation for a work refusal will include the following information:

1. Name of the employee refusing the work
2. date and time of work refusal notification
3. Superintendent / Foreman's name
4. Employee's reason for work refusal
5. Investigation notes from the Superintendent / Foreman and results
6. Time the Safety Manager was contacted and the time he/she arrived and departed
7. Investigation notes from the Safety Manager and results
8. Signature of all personnel involved

Signed: _____ Date: _____

Khalid Yasin, Managing Director

1.4 Working Alone Policy

The purpose of this policy is intended to promote employee awareness and facilitate employee safety when they are working alone. ABR Al Bihar Fire Fighting & Safety Equip. Inst. will ensure that there are safety plans in place for those who work alone, along with applying all reasonable measures, for the protection of employees who are performing their duties in areas under conditions where they are required to be on their own.

This policy applies to any employee who is required to perform hazardous work alone on or off the premises and whom may require assistance if they are exposed to conditions that result in a work related injury, health impairment of any kind, or any other adverse condition.

The requirements of complying with occupational Health and Safety Act, regulation and Code (part 28) the employer must:

- Conduct a hazard assessment to identify existing or potential safety hazards in the workplace associated with working alone;
- Implement safety measures to reduce the risk to workers from the identified hazards;
- Ensure workers have an effective means of communication between the worker and persons capable of responding to the worker's needs in the case of an emergency or the worker is injured or ill; and
- Regularly contact the worker at intervals appropriate to the nature of the hazard associated with the worker's work.

All hazards must be assessed prior to work at hand being started and proper controls must be put in place to minimize potential hazards and to protect the health and safety of the employee.

It is the responsibility of the Superintendent / Foreman to schedule any work to be done to minimize the hazards or eliminate working alone. The employee must consult the Superintendent / Foreman to schedule the work to be done in isolation or after hours so that there is a schedule check in procedure or that there is a helper on site.

If there is a lack of communication due to cell or radio coverage and if the work is deemed to be high risk, there must be a helper present on site.

Please see working alone Procedure

Signed: _____ Date: _____

Khalid Yasin, Managing Director

2. HAZARD ASSESSMENT ELIMINATION AND CONTROL

ABR Al Bihar Fire Fighting & Safety Equip. Inst. employees and subcontractor's must assess a work site on a daily basis and identify existing and potential hazards before work begins at the work site and must ensure that the hazard assessment is repeated at reasonably practicable intervals to prevent the development of unsafe and unhealthy working conditions, or when a new work process is introduced and operation changes.

3.1 Excavating, Ditching, and Shoring Safety

3.1.1 No worker shall enter a trench which is more than 1.5 meters deep unless the trench is properly shored, caged or back sloped.

3.1.2 Barricades, warning of the danger, shall be installed around the excavation as long as the hole is open. These shall be designed in such a manner that personnel cannot fall into the hole. Warning lights shall be installed at those excavations that are left open at night outside the confines of a secure site.

3.1.3 Prior to anyone entering an excavation where gas seepage may be a problem, the air quality shall be checked and confirmed as adequate for breathing in the excavation, and that combustible and poisonous gases are not present.

3.1.4 Any person entering the excavation where toxic gases are present shall use a SCBA and safety harness or belt with a safety line attached if appropriate.

3.1.5 A designated safety person, properly equipped shall be on site whenever anyone is in the excavation.

3.1.6 A safety plan shall exist which includes allocations of men and equipment to effect a rescue should it be required.

3.1.7 Ladders extending one meter above the excavation and situated not more than 10 m apart shall be in place. Ramps may be used instead of ladders. These shall be cut in the walls at similar strategic intervals to facilitate entry and exit.

3.1.8 Excavation equipment shall be positioned such that it does not endanger the integrity of the excavation or any surrounding equipment.

3.1.9 At no time shall the backhoe digging envelope extend beneath the machine.

3.2 Equipment Safety

3.2.1 Workers shall not start any mechanical equipment unless they are thoroughly familiar with its operation and they have been authorized to do so.

3.2.2 Machinery guards provided for protection against revolving or reciprocating parts must be in place before the engine or equipment is started.

3.2.3 Operators shall inspect the unit at the start of the shift to ensure operating reliability and proper functioning of all safety alarms and features.

3.2.4 The operator shall not operate the unit if in his opinion it is unsafe to do so. Units with improperly working safety features shall be taken out of service until repaired.

3.2.5 All workers concerned with directing the operation of the unit shall use a clearly defined method of signaling to the operator.

3.2.6 Signalmen or safety guards shall be used for all tight spaces and backing up maneuvers. (With the exception of backhoes, front end loaders, and bulldozers where backing up may be part of the machine operation). In such instances, warning signs and or barricades may be used to keep the work area free of intruders.

3.2.7 Employees shall not ride on any equipment not provided with a proper seat or platform for the purpose.

3.2.8 Equipment power units shall be shut down during all refueling and servicing operations.

3.2.9 When maintenance procedures are to be carried out, equipment shall be suitably choked or rendered immobile during the maintenance work. All pinch points shall be blocked or locked open.

3.2.10 Each operator shall promptly notify a supervisor of any defects in the equipment. Upon changing shifts the next operator shall be advised of such defects which have not been repaired.

3.3 Defective Tools

General

Defective tools can cause serious and painful injuries. If a tool is defective in some way,
DON'T USE IT!
Notify Superintendent immediately.

Be aware of problems like:

- chisels and wedges with mushroomed heads.
- split or cracked handles.
- chipped or broken drill bits.
- wrenches with worn out jaws.
- tools which are not complete, such as files without handles.

To ensure safe use of hand tools, remember:

1. never use a defective tool.
2. double check all tools prior to use.
3. ensure defective tools are repaired.

Air, gasoline or electric power tools, require skill and complete attention on the part of the user even when they are in good condition. Don't use power tools when they are defective in any way.

Watch for problems like:

- broken or inoperative guards.
- insufficient or improper grounding due to damage on double insulated tools.
- no ground wire (on plug) or cords of standard tools.
- the on/off switch not in good working order.
- tool blade is cracked.
- the wrong grinder wheel is being used.
- the guard has been wedged back on a power saw.

3.4 Use of Explosive/Powder Actuated Fastening Tools

General

There are a number of tools utilizing an explosive charge in use throughout the construction industry to drive fastenings.

The manufacturers of these devices provide detailed instructions regarding their use and maintenance. These instructions, along with the legislation specifically set out for their use, shall be closely adhered to at all times.

The following general recommendations apply to all explosive/powder actuated tools.

3.4.1 Only properly trained and qualified operators are to use this type of tool. The user shall possess proof of this training issued by the manufacturer, authorized dealer/distributor, or other competent source.

3.4.2 The tool must be CSA standard approved for “Explosive Actuated Fastening Tools”.

3.4.3 The tool should be loaded just prior to use with the correct load for the job anticipated. Tools should never be loaded and left to sit or be moved to an alternate work site after being loaded.

3.4.4 The tool should never be pointed at anyone, whether loaded or unloaded. Hands should be kept clear of the muzzle end at all times.

3.4.5 Explosive/powder actuated tools should always be stored in their proper lockable boxes.

3.4.6 Explosive/powder actuated tools must never be used in an explosive atmosphere.

3.4.7 When used, the tool must be held firmly and at right angles to the surface being driven into.

3.4.8 Eye protection must be worn by the operator. Where there is a danger of spalling, full face protection must be worn. Hearing protection is also to be worn in confined areas.

3.4.9 To prevent free-flying studs, ensure that the material being driven into will not allow the stud to completely pass through it (i.e. glass block, hollow tile etc.).

3.4.10 Manufacturers’ recommendations should be consulted and followed whenever there is a doubt about the material being driven into, maintenance procedures, or load strength to be used.

3.4.11 Always be aware of the other workers. Where a hazard to other workers is created by this operation, signs and barricades identifying the hazard area are mandatory.

3.5 Use of Portable Grinders

General

Abrasive wheels can cause severe injury. Proper storage of new wheels, proper use of wheels and proper maintenance of wheels must be observed.

3.5.1 Familiarize yourself with the grinder operation before commencing work.

3.5.2 Ensure proper guards are in place and that safety glasses, face shields, gloves and safety boots are worn when using portable grinders.

3.5.3 Never exceed the maximum wheel speed (every wheel is marked).Check the speed marked on the wheel and compare it to the speed on the grinder.

3.5.4 When mounting the wheels, check them for cracks and defects, ensure that the mounting flanges are clean and the mounting blotters are used. Do not over tighten the mounting nut.

3.5.5 Before grinding, run newly mounted wheels at operating speed to check for vibrations.

3.5.6 Do not use grinders near flammable materials and glazing units. Protect glass whenever possible.

3.5.7 Never use the grinder for jobs for which it is not designed, such as using the side of the disk to chamber pipe.

3.5.8 Can be used for cutting when zip blade is used.

3.5.9 Never use zip blade for grinding it will shatter.

3.6 Grinding

General

Severe injury may occur if proper protective equipment is not used and properly maintained.

3.6.1 Check the tool rest for the correct distance from the abrasive wheel, maximum 1/8” or 3 mm.

3.6.2 Replace the grindstone when adjustment of the rest cannot provide 1/8" or 3 mm clearance.

3.6.3 If the wheel has been abused and ground to an angle or grooved, reface the wheel with the appropriate surfacing tool.

3.6.4 Protect your eyes with goggles or a face shield at all times when grinding.

3.6.5 Each time a grinding wheel is mounted, the maximum approved speed stamped on the wheel bladder should be checked against the shaft rotation speed of the machine to ensure the safe peripheral speed is not exceeded. A grinding wheel must not be operated at peripheral speed exceeding the manufacturer's recommendation.

3.6.6 The flanges supporting the grinding wheel should be a maximum of 1/3 the diameter of the wheel, and must fit the shaft rotating speed according to the manufacturer's recommendation.

3.6.7 Bench grinders are designed for peripheral grinding. Do not grind on the side of the wheel.

3.6.8 Do not stand directly in front of grinding wheel when it is first started.

3.7 **Use of Portable Ladders**

General

Ladders can be used safely if they are given the respect they deserve.

Before using any ladder, make sure that it is in good condition and is the right ladder for the job to be done.

3.7.1 When setting up a ladder, secure the base and "walk" the ladder up into place.

3.7.2 The ladder should be set at the proper angle of one (1) horizontal to every four (4) vertical.

3.7.3 Before using a ladder, make sure it is secured against movement.

3.7.4 When in position, the ladder should protrude one (1) meter above the intended landing point. Ladder must be tied off.

3.7.5 Workers shall not work from the top two rungs of a ladder.

3.7.6 Don't overreach while on a ladder. It is easier and safer to climb down and move the ladder over a few feet to a new position.

3.7.7 Always face the ladder when using it. Grip it firmly and use the three-point contact method when moving up or down.

3.7.8 The minimum overlap on an extension ladder should be one (1) metre unless the manufacturer specifies the overlap. Top of ladder must be tied off.

3.7.9 Keep both metal and wood ladders away from electrical sources.

3.8 Use of Step Ladders

General

As with all ladders, make sure that the step ladder is in good condition, and is the right ladder for the job to be done.

Step ladders are to be used only on clean and even surfaces.

3.8.1 No work is to be done from the top two steps of a ladder, counting the top platform as a rung.

3.8.2 When in the open position ready for use, the incline of the front step section shall be one (1) horizontal to six (6) vertical.

3.8.3 The step ladder is only to be used in the fully opened position with the spreader bars locked.

3.8.4 Tops of step ladders are not to be used as a support for scaffolds.

3.8.5 Don't overreach while on the ladder. Climb down and move the ladder over to a new position.

3.8.6 Only CSA Standard ladders will be used.

3.9 Use of Wood Scaffolds

General

The construction of wood scaffold is closely regulated by Legislation. Materials and material dimensions are specified in detail in the O.H.& S General Safety Regulations.

Because the construction of these scaffold can vary greatly as to use, shape, location and the type of job to be done, they sometimes are built in a haphazard manner. To avoid this, the following Safe Work Practices are minimum.

3.9.1 Construction, alteration, design and removal of wood scaffolds is to be done by competent workers.

3.9.2 The material used to construct these scaffold should be sound, close grained and finished on all four sides.

3.9.3 The scaffold must be capable of supporting four (4) times the load that might be imposed on it.

3.9.4 All component parts should be tight together and properly fixed to each other.

3.9.5 Proper perimeter railing must be set in place; top rail, intermediate rail, toe board.

3.9.6 Scaffold work platforms shall be least 500 millimeters wide for light duty and 1 meter wide for heavy duty scaffolds.

3.9.7 When used as a scaffold work platform, planks shall be secured from movement by cleats or by being wired in place.

3.9.8 Cracked planks are not acceptable work platforms.

3.9.9 Safe access and egress is to be provided to all work platforms by the use of ladders.

3.9.10 Scaffold work platforms shall not span more than 3.1 meters on light duty scaffolds or 2.3 meters on heavy duty scaffolds.

3.10 Use of Metal Scaffolds

General

There are various types of metal scaffolds and they all have a right and wrong way to be erected.

The misuse of scaffolding is the cause of numerous serious injuries. Every worker who designs or constructs a scaffold should be competent and know what the manufacturer's specifications are for that type of scaffold.

The scaffold type which will be suited for the job and capable of withstanding the loads to be imposed on it must be determined before the job begins.

Ensure that:

3.10.1 The scaffold you intend to use is the correct one for the job.

3.10.2 The location in which the scaffold is to be constructed is level or is capable of presenting secure footing by use of mudsills or some other device.

3.10.3 The scaffold will be erected by a competent worker.

3.10.4 Legislative and manufacturer's requirements have been complied with;

3.10.5 Safe access and egress to both the scaffold and the general work area has been provided.

3.10.6 Leveling adjustment screws have not been over extended.

3.10.7 Tower scaffolds have outriggers or are guyed and have all component parts secured in place (i.e. cross braces, pins, lateral braces).

3.10.8 Scaffold work platforms have perimeter guardrail:

- Horizontal rail - 0.92 meters to 1.07 meters above the platform.
- Intermediate rail - Horizontal rail midway between scaffold platform and top rail.

- Toe board - Horizontal member at platform level no less than 140 mm in height above the platform level.

3.10.9 Scaffold planks are of number one grade materials with maximum spans of 3.1 meters on light duty and 2.3 meters on heavy duty with a maximum projection beyond the ledger of no more than 300 mm.

Scaffold Erection & Dismantling

-Scaffold to be erected by qualified workers

-Set mud sills

-Set leveling jacks

-Scaffold to be tied back to building or wind bracing from both sides

-Upon completion, scaffold to be inspected & tagged for safe use.

-Hoardings can now be installed

-Hoardings are to be removed from the top down

-All hoardings to be removed prior to dismantle of scaffolding

SCAFFOLDS

Date: _____

No.	Scaffold Inspection Check List	Yes	No
1.	Scaffold erection coordinated by a competent worker.		
2.	Scaffold square, straight and plumb in all directions.		
3.	All scaffold components present, tight and secure.		
4.	No tubes or members over extended and hazardous		
5.	Base plates and screw firmly supported on all legs (mudsills)		
6.	Leveling adjustment screws extended less than 0.3 meters and lock nuts tightened.		
7.	Tower tied to rigid support horizontally every 1.4 meters and vertically every 4.6 meters.		
8.	Free standing tower scaffold steadied with guy wire every 9.1 meters in height.		
9.	Platform planking cleated on underside at each end with wood or angle iron.		
10.	Platform planking tied down securely.		
11.	Platform planking maximum span 2.3 metres for heavy duty and 3.1 metres for light duty.		
12.	Vertical ladder securely fastened in place.		
13.	Safety cage needed around vertical ladder if it is more than 6.5 metres in height.		
14.	Perimeter 140 mm to be placed on work surfaces - toe board permanent 1.8 metres, temporary 3.5 metres in height.		
15.	Perimeter hand rail 0.9 metre to 1.07 metres high with a mid rail around all work platforms.		
16.	Separate rope or hand line in place at all platforms to raise and lower tools or material.		
17.	Warning devices/signs provided if erected over walkways or roadways (flashing lights, reflective tape streamers, or area is roped off).		
18.	Minimum clearance from overhead power lines maintained as per Occupational Health and Safety Regulations.		
19.	Rolling scaffold wheel brakes locked and outriggers extended to maintain maximum height of 3 ties the smallest base dimension.		
20.	Separate ladders being used for scaffold access.		
21.	Scaffold constructed & maintained according to certified engineered drawings.		

3.11 Hand and Power Tools

3.11.1 (a) Hand tools shall be kept sharp and in good working condition. Worn or broken tools shall be replaced. Notify superintendent immediately.

3.12 Use of Hand-Held Circular Saws

General

This type of power hand tool is one of the most commonly used in construction. Because of this common use there are numerous accidents due to thoughtless acts.

The following are the minimum accepted practices to be used with this saw.

3.12.1 Approved safety equipment such as safety glasses or a face shield is to be worn.

3.12.2 Where harmful vapors or dusts are created, approved breathing protection is to be used.

3.12.3 The proper sharp blade designed for the work to be done must be selected and used.

3.12.4 The power supply must be disconnected before making any adjustments to the saw or changing the blade.

3.12.5 Before the saw is set down be sure the retracting guard has fully returned to its down position.

3.12.6 Both hands must be used to hold the saw while ripping.

3.12.7 Maintenance is to be done according to the manufacturer's specifications.

3.12.8 Ensure all cords are clear of the cutting area before starting to cut.

3.12.9 Before cutting, check the stock for foreign objects or any other obstruction which could cause the saw to "kickback".

3.12.10 When ripping, make sure the stock is held securely in place. Use a wedge to keep the stock from closing and causing the saw to bind.

3.13 Use of Chain Saws

General

Chain saws are used for many jobs in construction. Since this tool was primarily meant for use in the logging industry, it can be an unfamiliar tool to some workers.

Workers must be trained in its safe use before using a chain saw.

This training must include a minimum of the following elements:

3.13.1 This proper personal protective equipment to be worn is set out by the manufacturer and Occupational Health & Safety Legislation.

3.13.2 Fueling of the saw must be done in a well ventilated area and not while the saw is running or hot.

3.13.3 An approved safety container must be used to contain the fuel used along with a proper spout or funnel for pouring.

3.13.4 The correct methods of starting, holding, carrying, or storage and use of the saw as directed by the manufacturer must be used.

3.13.5 Ensure that the chain brake is functioning properly and adequately stops the chain.

3.13.6 The chain must be sharp, have the correct tension, and be adequately lubricated.

3.13.7 When carrying/transporting a chain saw the bar guard must be in place, the chain bar must be toward the back and the motor must be shut off.

3.13.8 The chain saw must not be used for cutting above shoulder height.

Chain saws will comply with CSA Standards Z62.1-M-77.

3.14 Use of Compressed Air

General

Air powered tools in construction range from stapling guns to jackhammers. If not treated with respect, these tools can become a powerful enemy rather than a servant.

3.14.1 Compressed air must not be used to blow debris or to clear dirt from any worker's clothes.

3.14.2 Ensure that the air pressure has been turned off and the line pressure relieved before disconnecting the hose or changing tools.

3.14.3 All hose connectors must be of the quick disconnect pressure release type with a "safety chain/cable".

3.14.4 Wear personal protective equipment such as eye protection and face shields, and ensure other workers in the area are made aware of or have restricted access to the hazard area.

3.14.5 Hoses must be checked on a regular basis for cuts, bulges, or other damage. Ensure that defective hoses are repaired or replaced.

3.14.6 A proper pressure regulator and relief device must be in the system to ensure that correct desired pressures are maintained.

3.14.7 The correct air supply hoses must be used for the tool/equipment being used.

3.14.8 The equipment must be properly maintained according to the manufacturers requirements.

3.14.9 Follow manufacturer's general instructions and comply with legislated safety requirements.

3.15 Proper Lifting Practices-Hoisting

Evaluating the Load
Determine the weight of the object or load prior to a lift to make sure that the lifting equipment can operate within its capabilities.

Balance Loads
Use double chokers on beams to avoid slipping through.

Estimate the center of gravity or point of balance. The lifting device should be positioned immediately above the estimated center of gravity.

Landing the Load

Prepare a place to land the load, lower the load gently and make sure it is stable before slackening the sling or chain.

3.15.1 Select only alloy chain slings and NEVER exceed the working load limits.

3.15.2 Make sure the hoist or crane is directly over the load.

3.15.3 Use slings of proper reach. Never shorten a line by twisting or knotting. With chain slings, never use bolts or nuts.

3.15.4 Never permit anyone to ride the lifting hook or the load.

3.15.5 Make sure all personnel stand clear from the load being lifted.

3.15.6 Never work under a suspended load, unless the load is properly supported.

3.15.7 Never leave a load suspended when the hoist or crane is unattended.

3.15.8 Inspect all slings thoroughly at specified intervals and maintain them in good condition.

3.15.9 Inspect each chain or sling for cuts, nicks, bent links, bent hooks, etc., before each use. If in doubt, don't use it.

3.15.10 Ensure that safety latches on hooks are in good working condition.

3.15.11 Ensure that the signaler is properly identified and understands techniques of proper signaling. Designated signaler to do the controlling.

3.15.12 Make sure a tagline is used to control the load.

Operating Near Electrical Lines

3.15.13 Any boomed equipment (crane, backhoe, sideboom) operating within the boom length of the minimum safe distance (as specified in the table below) of any electrical line shall have a competent signalman.

When operating, no part of any crane or its load shall be permitted to approach any closer to any power line than the distances specified unless the electrical authority has been notified and the line de-energized or insulated.

MINIMUM SAFE DISTANCE FROM LIVE ELECTRIC POWER LINES

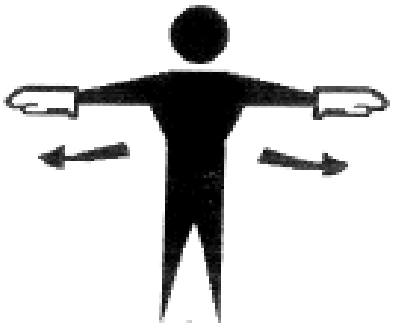
Voltage (V)	Distance (m)
up to 125 000	3.5
125 001 to 250 000	5
over 250 000	8

Note: Use extreme caution when working in proximity to radio transmission towers.

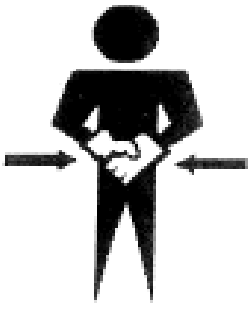
SIGNALS

Alberta O.H.S. Regulations on crane and hoist signals supplies the standard signals as illustrated below, and on the following pages.

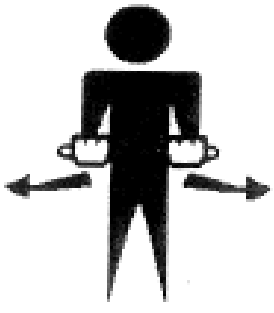
Stop



Emergency Stop



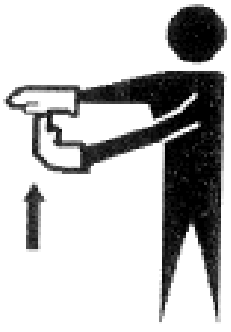
Dog Everything



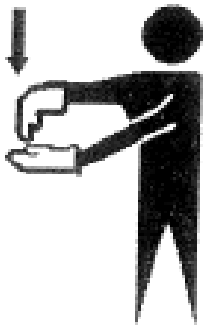
Extend Boom

Shorten Boom

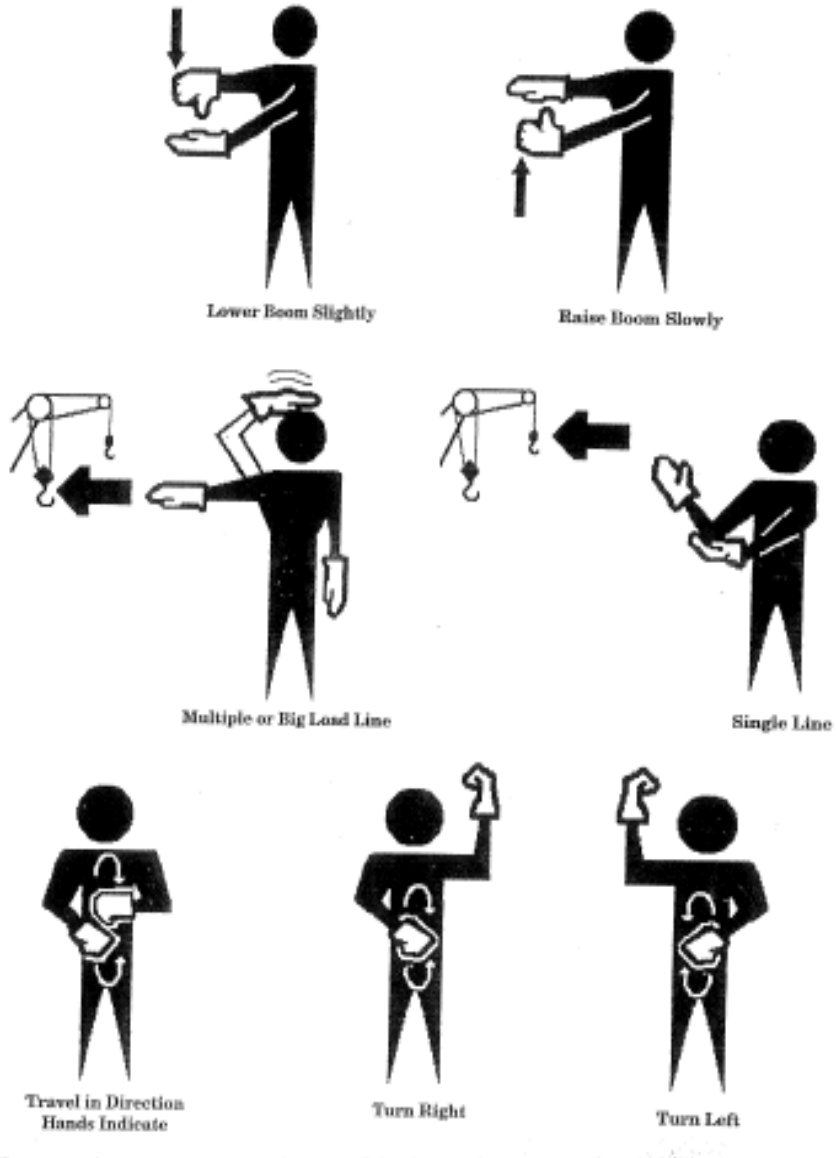
Make Movement Slowly



Raise Load Slightly



Lower Load Slowly


Lower Boom Slightly
Raise Boom Slowly
Multiple or Big Load Line
Single Line
Travel in Direction Hands Indicate
Turn Right
Turn Left

Hoist Load

Lower Load

Raise the Boom

Lower the Boom

Swing Load

Lower the Boom and
Raise the Load

Raise the Boom and
Lower the Load

3.16 Rigging

General

Rigging looks like an easy operation that requires no particular skill or experience. But if you have an idea that just anybody can do it, you're on the wrong track. Too many men have lost fingers or hands or have suffered more serious injuries because they thought, "Anybody can do that".

Here are some do's and don't's to remember:

3.16.1 Name one member of the crew to act as a signalman, and instruct the equipment operator to recognize signals from that person only. The signalman must be careful not to order a move until he has received the"all ready" signal from each member of the crew.

3.16.2 Each rigger must be sure he's in the clear before he gives an "all ready" to the signalman. When you have positioned the sling or choker you're using, release it, if possible, before you give the "all ready" signal.

3.16.3 If you must hold the sling or choker in position, be sure your hand is clear of pinch points. In fact, your hand should be far enough away so there's no possibility of a frayed wire catching your glove and jerking your hand into a pinch point. (Of course, frayed cables should never be used).

3.16.4 Watch out for the roll or swing of the load. Since it's almost impossible to position the hook exactly over the load centre, there will almost always be a swing or roll. Anticipate the direction of the swing or roll and work away from it.

3.16.5 Never place yourself between material, equipment or any stationary object and the load swing. Also, stay away from stacked material that may be knocked over by a swinging load.

3.16.6 Never stand under the load, and keep from under the boom as much as possible. Chances are that nothing will break, but something might.

3.16.7 Look over the place where the load is to be set. Remove unnecessary blocks or other objects that might fly up if struck by the load.

3.16.8 When lowering or setting the load, be sure your feet and all other parts of your body are out from under. Set the load down easily and slowly so that if it falls on the blocking, it will be a slow shift that you can get away from.

3.16.9 Identify the designated signalman by the use of distinctive vests, armlets, etc.

3.16.10. Use tag lines to control the leads.

3.17 Attaching Cable Clips and Clamping Wire Rope

General

3.17.1 Wire the thimble to the rope at the desired point, then bend the rope around the thimble and secure temporarily by wiring the rope members together.

3.17.2 First attached the clip farthest from the thimble and tighten (be sure the base of the saddle rests upon the live end of the rope and the "U" bolts on the short end). All clips must be attached in this manner.

3.17.3 The clip nearest the thimble goes on next. Do not tighten yet. If one or more additional clips are to be attached, place them at an equal distance apart between the clips already attached.

3.17.4 Before tightening, place some stress on the rope to take up the slack and equalize the tension on both sides of the clip. (Do not apply too much stress or the clip attached in Step 1 will not hold). Tighten all clips.

Diameter of Rope (Millimetres)	Number of Clips	Spacing Between Clips Centre to Centre (Millimetres)	Torque (Newton-Metres)
6	2	38	20
8	2	51	40
10	2	57	65
11	2	64	90
12	3	76	90
16	3	102	135
19	4	114	176
22	4	133	305
25	4	152	305
29	5	178	305
32	5	203	488
38	6	229	488
44	7	267	628
50	8	305	881

3.18 Use of Propane

General

Since propane is heavier than air and invisible, it is a special concern when it is used on the job-site.

All installations and use of this product on the job-site must comply with the Government Legislation set out for its safe use.

Suppliers delivering the product or setting up the equipment at the site must be part of the safe work practice.

3.18.1 Nylon slings must be used in a "choker" fashion when loading, off-loading or lifting propane tanks.

3.18.2 "Lifting lugs" provided on tanks are to be used.

3.18.3 Tank valves and regulators are to be removed from the tank prior to any movement of the tank. Protective cap to be in place if available.

3.18.4 Crane hooks shall be equipped with a "safety latch".

3.18.5 All trucks, cranes or equipment used to handle propane tanks must be equipped with a fire extinguisher appropriate for the size and type of tank being handled.

3.18.6 Except in an emergency, any movement or repositioning of tanks shall be performed by a competent worker.

3.18.7 Tanks are not to be heated in increase flow.

3.18.8 When in use, propane bottles are to be securely held in an upright position.

3.18.9 Tanks are not to be hooked up and used without proper regulators. Never operate or handle tanks while smoking and always allow ventilation before lighting vaporizors.

3.19 Use of Tiger Torches

General

Tiger torches, although valuable to a job-site, are sometimes misused in a manner that can make them dangerous.

Tiger torches are only to be used for preheating of piping etc. prior to welding.

3.19.1 When a torch is used, an adequate fire extinguisher must be present.

3.19.2 Torches are not to be used for heating of work areas or thawing of lines and equipment, etc. when not in use.

3.19.3 Ensure that the propane bottles are properly shut off.

3.19.4 Fuel lines are to have regulators.

3.19.5 Propane bottles shall be secured in an upright position.

3.20 Welding, Cutting and Burning

General

Work involving welding, cutting and burning can increase the fire and breathing hazard on any job, and the following should be considered prior to the start of work.

3.20.1 Always ensure that adequate ventilation is supplied since hazardous fumes can be created during welding, cutting and burning.

3.20.2 Where other workers may also be exposed to the hazards created by welding, cutting and burning, they must be alerted to these hazards or protected from them by the use of “screens”.

3.20.3 Never start work without proper authorization and completing a hot work permit.

3.20.4 Always have fire fighting or prevention equipment on hand before starting welding, cutting or burning.

3.20.5 Check the work area for combustible material and possible flammable vapours before starting work.

3.20.6 A welder should never work alone. A fire or spark watch should be maintained.

3.20.7 Check cables and hoses to protect them from slag or sparks.

3.20.8 Never weld or cut lines, drums, tanks, etc. that have been in service without making sure that all precautions have been carried out and permits obtained.

3.20.9 Never enter, weld or cut in a confined space without proper gas test and required safety lookout

3.20.10 When working overhead, use fire resistant materials (blankets, tarps) to control or contain slag and sparks.

3.20.11 Cutting and welding must not be performed where sparks and cutting slag will fall on cylinders (move all cylinders away to one side).

3.20.12 Open all cylinder valves slowly. The wrench used for opening the cylinder valves should always be kept on the valve spindle when the cylinder is in use.

3.21 Use of Cleaning Solvents and Flammables

General

Cleaning solvents are used in the day-to-day construction work to clean tools and equipment. Special care must be taken to protect the worker from hazards which may be created from the use of these liquids. Wherever possible, solvents should be nonflammable and non-toxic.

The foreman must be aware of all solvents/flammables that are used on the job, and be sure that all workers who use these materials have been instructed in their proper use and any hazard they pose.

The following instructions or rules apply when solvents/flammables are used:

3.21.1 Use nonflammable solvents for general cleaning.

3.21.2 When flammable liquids are used, make sure that no hot work is permitted in the area.

3.21.3 Store flammables and solvents in special storage areas.

3.21.4 Check toxic hazards of all solvents before use. (MSDS)

3.21.5 Provide adequate ventilation where all solvents and flammables are being used.

3.21.6 Use goggles or face shields to protect the face and eyes from splashes or sprays.

3.21.7 Use rubber gloves to protect the hands.

3.21.8 Wear protective clothing to prevent contamination or worker’s clothes.

3.21.9 When breathing hazards exist, use the appropriate respiratory protection.

3.21.10 Never leave solvents in open tubs or vats - return them to storage drums or tanks.

3.21.11 Ensure that proper containers are used for transportation, storage and field use of solvents/flammables.

3.21.12 Where solvents are controlled products, ensure all employees using or in the vicinity of use or storage are trained and certified in the Workplace Hazardous Materials Information System. Ensure all WHMIS requirements are met.

3.22 Fire Safety Guidelines

The following general safety guidelines are applicable to all workers on all aspects of the construction project.

3.22.1 Reducing Hazards from Sources of Ignition:

- All temporary and permanent electrical wiring and equipment shall be in accordance with the Canadian Electrical Code.
- Nozzles of air, inert gas, steam lines or hoses should be electrically bonded if used in cleaning or ventilating tanks or vessels used for flammable materials.
- Exhaust systems of all internal combustion engines shall be located away from combustible materials, and be safely isolated from building structures.
- Diesel engines shall all be equipped with positive air shutoffs.
- Open flames shall be prohibited in any suspect area, and suitable warning signs shall be posted.
- Non-sparking or “hazardous location” type battery-powered equipment should be used in suspect areas.
- Smoking is allowed in specified areas (to be determined by the Superintendent), which are posted as Smoking Areas.
- Clothing worn in hazardous areas should be anti-static types or no nylon equivalent.

3.22.2 Outside Storage of Materials:

- Combustible materials should not be stored within 3.5 m of any building. Stacked height not more than 7 m.
- Suitable fire extinguishing equipment should be located in easily accessible positions.
- All outside storage areas must be free of unnecessary combustible materials.

3.22.3 Inside Storage of Materials:

- All exits must remain unobstructed.
- Stacked material must provide free access for fire fighting.

- All materials should be stored, handled, and stacked with due regard to combustible characteristics.
- Adequate clearance should be provided around lights and heating equipment.

3.22.4 Storage of Flammable and Combustible Liquids:

- Only approved containers and portable tanks should be used for storage and handling.
- No storage in personnel access areas.
- Adequate clearance should be provided around lights and heating equipment.
- A separation of materials that react with water to create a fire hazard, and also flammable and combustible materials.
- Drums, tanks, and other containers stored in quantities and with clearances as specified in O.H. & S. standards.
- Storage areas should be graded for safe drainage of possible liquid spillage. Also, adequate drainage should be allowed for storm water and spillage when dikes and curbs are used.
- Portable tanks should be equipped with emergency venting.
- Storage areas should be kept free of weeds, debris, and any unnecessary combustible material.

3.22.5 Dispensing and Handling Flammable Liquids:

- Isolation of areas used for transference of flammable and combustible liquids by fire-resistant structures (1 hour). Drainage provided to control spillage. Ventilation provided to keep vapours below minimum flammability limit.
- Transference of flammable or combustible liquids only between electrically bonded containers.
- Transference of flammable or combustible liquids through a closed piping system only, or approved pumping device fitted with a self-closing valve. Transference by applying air pressure to tank is prohibited.
- At point of end use liquids kept in closed containers, any spillage promptly cleaned up. Flammable and combustible liquids not used in the open if less than 15 m from any source of ignition.

3.22.6 Temporary Heating Devices:

- Clearance between heating devices and any combustible material to meet requirements of O.H.& S. standards.
- Heaters not suitable for mounting on wood floors to be set on heat-insulating material equivalent to at least 25 mm concrete, and extending beyond heater at least 0.6 m in all directions.
- Sufficient supply of fresh air required to ensure health and safety of personnel, proper combustion, and no undue rise in temperature. All heaters to be set horizontally and level, unless manufacturer’s design permits otherwise.

3.23 Fire and Use of Fire Extinguishers

General

Good housekeeping is essential in the prevention of fires. Fires can start anywhere and at any time. This is why it is important to know which fire extinguisher to use and how to use it.

Always keep fire extinguishers visible and easy to get at. Fire extinguishers have to be properly maintained to do the job. Fire extinguishers should be charged and checked for missing or broken pins. Where temperature is a factor, ensure that care is taken in selecting the right extinguisher.

Types of Fires

3.23.1 Class A: These fires consist of wood, paper, rags, rubbish and other ordinary combustible materials.

Recommended Extinguishers
Water from a hose, pump type water can, or pressurized extinguisher, and code acid extinguishers.

Fighting the Fire
Soak the fire completely - even the smoking embers.

3.23.2 Class B: Flammable liquids, oil and grease.

Recommended Extinguishers
ABC units, dry chemical, foam and carbon dioxide extinguishers.

Fighting the Fire
Start at the base of the fire an use a swinging motion from left to right, always keeping the fire in front of you.

3.23.3 Class C: Electrical equipment.

Recommended Extinguishers
Carbon dioxide and dry chemical (ABC units) extinguishers.

Fighting the Fire
Use short bursts on the fire. When the electrical current is shut off on a Class C fire, it can become a Class A fire if the materials around the electrical fire are ignited.

3.24 Steel Erection Requirements

General

This procedure provides guidelines for the erection process and the protection of personnel during pre-engineered building erection, (self-performed or contracted).

3.24.1 Anchor Bolts

Before starting steel erection, anchor bolts must be checked and certified for proper placement.

Prior to the start of steel erection a survey will be made of the conditions to determine the hazards and the kind and number of safe guards that are required to be installed and used. The survey shall include, but not be limited to, safe access and movement, work procedures, tools, and equipment.

3.24.2 Bracing

As the building erection begins, it shall be braced to the extent required to support the load per the AISC code. Erector shall provide temporary bracing during the erection and maintain temporary bracing until roof and wall panels or permanent braces are installed. Temporary cables shall be no less than 3/8" in diameter and shall be flagged for visibility.

Temporary Bracing

Temporary supports, such as temporary guys, braces, falsework, cribbing, etc., must be used throughout the entire erection process to secure the steel framing or any partially assembled steel framing, against load, including those resulting from wind, seismic forces, and erection equipment and operations. Temporary bracing will also assist in keeping the structure plumb and square.

It is the responsibility of the erector to determine the amount and size of temporary bracing and to furnish and install such bracing.

Bracing furnished by Butler is a part of the permanent structural support system for the completed building and should not be relied upon as temporary bracing.

Warning tape or flags should be attached to any bracing installed to prevent personal injury and damage to the bracing or building from construction equipment.

3.24.3 Ladders/Portable and Extensions Ladders

Always be careful to avoid loading a ladder beyond its capacity so that there is not excessive deflection in the middle. If this is the case, the ladder should be braced to prevent deflection.

The ladder shall extend at least three (3) feet above the upper landing and secured top and bottom on both sides. Ladders must be set up in such a manner that no unauthorized person may use them day or night.

a) Portable Ladders

Portable ladders shall be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one quarter of the working length of the ladder.

The material, size, and construction of every portable ladder to be such that when placed at an angle obtained by moving the foot of the ladder out of the perpendicular a distance equal to 1/4 its length, it will support a vertical load of at least 200 pounds applied at the center of the middle step without imposing stresses in excess of the allowable working stresses of the material used in the ladder. The material, size, and construction of every fixed ladder to be such that it will support a vertical load of at least 200 pounds applied at the center of any step without imposing stresses in excess of the available safe working stresses of the materials used in the ladder.

- Wood side rails of portable ladders shall be dressed on all sides and shall be free from sharp edges and splinters. Knots over 1/8 inch in diameter shall not appear in rung. Knots shall not appear in the narrow faces of side rails, treads, or rung.

Portable ladders shall have a minimum width of 11 1/2 inches between side rails, except for the upper four feet where converging side rails providing less than 11 1/2 inches of space are allowable.

3.25 Safety Nets And/Or 100% Tie Off Requirements

3.25.1 Safety Nets

Personal Protection

In all pre-engineered building structures, safety belts and/or scaffolds will be used by all employees exposed to a fall hazard of 6.5 feet or more. Static lines and life lines will be installed as needed within the structure to facilitate tying-off. Employees will tie off whenever they are exposed to a fall from the structure. Connectors will be permitted to unhook their safety belts only during the actual receiving and positioning of structural members. As soon as it is safe and appropriate to do so (generally as soon as the connecting bolts have been installed), the connector will be required to re-hook his safety belt. When gathering, stacking, and installing roof decking, personnel shall be protected by safety belts with lanyards attached to a catenary line, life line, or other substantial anchorage or by providing work platform or scaffolds.

It should be emphasized that this procedure is mandatory and must be followed at all times. Any person, regardless of the job function, who is found violating this procedure and exposing either himself or other employees to a fall hazard, will be subject to disciplinary action.

If, in any particular situation, compliance with the above is impossible or highly impractical, the Safety Manager must be notified to approve or define any required deviations before the work commences. No deviations will be permitted without the express approval of the Safety Manager.

- Unless workers are tied off as described in the following Section 3.25.2, safety nets shall be provided when work places are more then 6.5 feet above the ground or water surface, or other surfaces where the use of ladders, aerial lift baskets, scaffolds, catch platforms, temporary floors, safety lines, or safety belts is impractical.

- Where safety net protection is required, operations shall not be undertaken until the net is in place and has been tested.

- Nets shall extend 8 feet beyond the edge of the work area where employees are exposed and shall be installed as close under the work surface as practical, but in no case more than 6.5 feet below such work surface. Nets shall be hung with sufficient clearance to prevent user's contact with the surfaces or structures below. Such clearances shall be determined by impact load testing.

- The net construction and support shall be in compliance with O.H.& S. regulations. The mesh size of nets shall not exceed 6 inches by 6 inches. All new nets shall meet accepted performance standards of 17,500 foot-pound minimum impact resistance as determined and certified by the manufacturer, and shall bear a label of proof test. Edge ropes shall provide a minimum breaking strength of 5000 pounds.

- Forged steel safety hooks or shackles shall be used to fasten the net to its supports.

- Connections between net panels shall develop the full strength of the net.

3.25.2 Tie Off

- If safety nets are not being used when work places are more then 6.5 feet above the ground or water surface, all workers exposed to fall shall be 100% tied off in a safe and acceptable manner. This shall include connectors at the point in time there is a safe, stable work area to tie off to.
  Where the elevation is 25 feet or more above the ground, or water surface, or continuous floor level below, and when the use of safety belts and lifelines or more conventional types of protection are clearly impractical, the interior perimeter of the structure shall be provided with an approved-type safety net extending at least 8 feet

horizontally from such perimeter and being positioned at a distance not to exceed 6.5 feet vertically below where such hazards exist, or equivalent protection provided.

- Lifelines and safety belts, including anchorage, shall be in compliance with O.H.& S. regulations. Lifelines, safety belts, and lanyards shall be used only for employees safeguarding. Any lifelines, safety belts, or lanyard actually subjected to in-service loading, as distinguished from static load testing, shall be immediately removed from service and shall not be used again for employee safeguarding

  Approved safety belts and lifelines shall be worn by those employees whose work exposes them to falling in excess of 6.5 feet from the perimeter of a structure or through shaft ways and openings not otherwise adequately protected the anchor end of the lifeline shall be secured at a level not lower than the workman's waist, and at a horizontal distance not to exceed 6 feet, except where the waist level connection is not possible, connections at foot level may be permitted, provided that adequate risk control procedures are followed. Lifelines shall be secured to a substantial member of the structure or securely rigged lines, using a positive-descent control device.

  Safety belts and nets shall be required in accordance with O.H. & S. regulations.

- Lifelines shall be secured above the point of operation and are to be an anchorage or structural member capable of supporting a minimum dead weight of 5,400 pounds.

- Lifelines used in areas where the lifeline may be subjected to cutting or abrasion, shall be a minimum of 7/8 inch wire core manila rope. For all other lifeline applications, a minimum of 3/4 inch manila or equivalent, with a minimum breaking strength of 5,400 pounds, shall be used.

- Safety belt lanyard shall be a minimum of 1/2" nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet. The rope shall have a nominal breaking strength of 5,400 pounds.

- All safety belt and lanyard hardware shall be drop forged or pressed steel, cadmium plated. Surface shall be smooth and free of sharp edges.

All safety belt and lanyard hardware, except rivets, shall be capable of withstanding a tensile loading of 4,000 pounds without cracking, breaking, or taking a permanent deformation.

3.26 Roof and Edge of Roof Protection

The Elan Safety Program will include instruction in the safe installation of roof panels. Handling of roof panels, installation of panels, edge of roof protection and recognition and correction of hazards will be reviewed. In addition, appropriate printed roof safety

information will be distributed and the understanding of this information signed off by all workers before they go on the roof.

During the placing of MR-24 roof panels or Butlerib II roof panels (if any), our erection forces or Erection Subcontractor will abide by O.H. & S. regulations and Elan Safety Program comprised of the following as applicable to the Work:

3.26.1 Edge of Roof Perimeter Protection

Workers on a roof with a ground to eave height of 6.5' or more who are working within 6 feet of the edge of the roof shall be protected from falling from all unprotected sides and edges of the roof by an approved motion stopping system which must include a tie-off system, roof edge nets, or a perimeter cable system. When roof edge nets or a perimeter cable system are used they shall remain in place until the roofing work is completed and workers are no longer working on the roof. If roof traffic is contained, controlled and posted by roped off areas and aisle ways so that workers are not allowed to go in certain areas of the roof, then these "off limits" areas do not have to be protected. If work must later be done in one of these "off limits" areas, roof perimeter protection will be required in this area.

The edge of roof clamp may be used as a tie-off system when working within six feet of the edge of the roof (when working outside the edge of roof warning line or edge of roof electric warning line), installing the roof seamer starting platform, starting the roof seamer, placing the roof eave panel, placing the roof panels in the direction of the roof installation, installing the edge of the roof trim and gutter, installing curbs, skylights, and other roof mounted equipment, or other activities at the roof edge. (See Page 37). This tie off system can be used in lieu of edge of roof nets or a perimeter cable motion stopping system.

3.26.2 Warning Line

In all areas of the roof where work is in process and a perimeter edge of roof cable system is not in place, a warning line shall be erected around all sides of the roof work area, not less than six feet from the edge of the roof. This warning line shall remain in place until the roofing work is completed and workers are no longer working on the roof. This warning line shall consist of a rope or cable having a minimum tensile strength of 500 pounds. This rope or cable must be attached to stanchions which must be able to withstand sixteen (16) pounds of pressure without tipping. Stanchions shall be thirty-nine inches (39") high from the roof surface to the point where the rope or cable is attached. The rope or cable must be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over. The rope or cable will be flagged at six (6'-0") feet intervals with highly visible material. If roof traffic is contained, controlled, and posted by roped off areas and aisle ways so that workers are not allowed to go in certain areas of the roof, then these "off limits" areas do not have to be protected. If work must later be done in one of these "off limits" areas, roof warning line protection will be required in this area.

3.26.3 Other Roof Process Requirements

- People using seaming machine must be tied off at the edge.
- When the work is of short duration and limited exposure and the hazards involved in rigging and installing the safety devices required by this Article equals or exceeds the hazards involved in the actual construction, these provisions may be temporarily suspended, provided adequate risk control is recognized and maintained under immediate, competent supervision.
- People securing insulation or installing roll runner banding must be tied off.
- Starting edge of roof panels must be secured with clamps.
- Skylight panels shall be posted, "**DO NOT STEP**".
- Clean off roof daily of all roof filings and/or miscellaneous rubbage.
- Seaming should be 100% complete by end of day.
- All openings in the roof, mezzanines, floors, and elevators must be properly posted and protected. Subcontractor creating the hazard is responsible for protecting it.

If trash is being removed from the roof by dropping it below, a guard shall be posted in the area the debris is landing to warn personnel of the operation. Do not allow trash to hit the building.

3.27 Hot Roof Operations

3.27.1 Knotted hand lines should not be used.

3.27.2 Roofers tending kettles, or carrying buckets of hot tar, shall wear gloves that fit snugly at the wrists, and long sleeved shirts fastened at the wrists.

3.27.3 At no time should a roofer, while handling or exposed to injury from hot tar, work without a shirt or appropriate footwear.

3.27.4 Appropriate portable fire extinguishers shall be kept at or near the kettle, attached, if practicable, to the tongue of the kettle, away from the danger zone.

3.27.5 Kettle covers should be equipped with a handle that projects at least fourteen inches (14") away from the surface of the cover or lid.

3.27.6 Kettle covers shall be closed and latched when in transit and the kettle should be slop-proof when cover is closed.

3.27.7. When parked, means shall be provided to prevent inadvertent movement of the kettle.

3.27.8. Ladders should be used with great caution, and roof gutters should not be depended upon for support.

3.27.9. Workers handling buckets of hot tar should not carry anything that will interfere with the safety of this operation.

3.27.10. The gallows frame shall be securely anchored before hoisting materials.

3.27.11. Only muscular power shall be used to hoist materials by means of a gallows frame. A winch or power hoist shall not be used.

3.28 Siding Safety Requirements

O.H. & S. regulations shall be followed regarding proper, safe use of equipment and work processes, man baskets, forklifts, scaffolding trailers, scaffolding, and staging. Ground should be level and compacted-No risk of movement.

3.29 Roofing Work Safety Instructions

Working off the ground even a few feet can be extremely dangerous. Falls from a height of ten feet or less can be fatal. You should be aware of the following hazards while installing roof panels:

3.29.1 Panels Can Collapse

Butler roof panels can be a safe walking surface (except for slipperiness caused by oil, wax or moisture) ONLY when they are completely seamed (MR-24 or VSR panels) or fastened (Butlerib II and CMR-24 liner panels) to other panels on each side.

Panels not completely seamed or fastened on each side are not safe and can collapse suddenly and without warning!

Follow these additional safety precautions:

- Never step, kneel or place weight on the raised edge of an MR-24 panel or VSR panel or on the edge corrugation of a Butlerib II panel or CMR-24 liner panel.

- Use extra care when installing panels with creased or kinked corrugation or edges. Placing weight on any portion of such a panel may cause the panel to collapse.

- Never stand or work within five (5) feet from the end of a panel that is not fully seamed or fastened. Always use walk boards.

- When fastening a panel to the structural, stand toward the middle away from the raised edge or edge corrugations of the panel and directly over the roof structural.

- Never allow more than one worker to stand or work on the same panel between two roof structurals.

- When walking on CMR-24 liner panel that has been fastened to the roof structural, do not step on the side lap. Step only on the liner panel area that is supported by the roof structural.

Never use unattached roof panels as a work platform for any purpose. This is an extremely hazardous practice and should never be done.

3.29.2 Panels Can Be Slippery Due To Oil, Wax or Moisture

Unpainted roof panels are coated with oil to protect them from rust during shipping and storage. This can make the panels very slippery to walk on.

The oil has been specially developed to evaporate when exposed to air. Evaporation usually takes 30 to 90 minutes or longer depending on weather conditions. You should remove panels from the bundle and expose them to the air to allow for evaporation before installing.

The oil may leave a coating of oil on the soles of your shoes. This coating may cause you to slip and fall even when you are no longer working on the roof panel.

If a bundle of panels is stored on a slight slope, the oil may run down hill on warm days and collect on one portion of the panels. This makes the oily portion of the panels ever more slippery than normal and will make evaporation slower.

Painted panels have a silicone (wax) finish which also is very slippery to walk on if need be try kneeling on panels.

Dew, frost, or any other moisture on roof panels, whether painted or unpainted, greatly increases the slipperiness of the panels and extra care should be taken.

In certain conditions, it is essential that walk boards be used in the flat of the panel when installing roof panels or insulation. Fall protection must always be used.

3.29.3 Loose Panels May Slide Out From Under You

Never step on a single roof panel or a stack of several roof panels lying unattached on the purlins. The bottom side of roof panels may also have oil or wax coating. If you step onto a single panel lying unattached on the purlins, it may slip causing you to lose your balance and fall. Even a stack of several panels lying unattached on the purlins may slip if you step on it. Always clamp or tie roof sheets. Wind can blow at anytime.

3.29.4 What To Do To Prevent Roof Falls

- Always use fall protection when working above 6.5'.

- The Use of Walk boards When Installing Roof Panels - In certain conditions it may be necessary to place walk boards in the flat of panels. (Walk boards for MR-24, CMR-24 liner panels, or VSR should be 2 x 12 stock.) The boards should run the full length of the roof slope and should be fastened together by drilling a hole near the ends of each board and tying it to the next board. Cut a groove in the bottom of each board so that the board will lie flat and not tip back and forth because of the rope. This will prevent the boards from slipping out from under you when you step on them.

- If You Need a Work Platform - for laying insulation or any other purpose, you should use a runway as specified in O.H. & S. Section 1926.500 (d) (A walk board at least 18" wide with a toe board and a 42" high railing made of 2 x 4's on one side with another rail halfway between the toe board and the top rail.) Never use unattached panels as work platforms.

- To Avoid Slipping - wear good work boots while on the roof. The danger from a slip is greater while installing roof panels or insulation and at the edge of the roof. Use walk boards in the flat of panels when installing panels or insulation. When working near the edge of the roof, you should use fall protection such as safety lines, safety nets, a catch platform or the like. To reduce the danger of slipping from oil, remove panels from the bundle and expose them to air to allow the oil to evaporate before laying them in place on the purlins.

To prevent Panels from Slipping - Do not step on loose roof panels or even a stack of several roof panels. Clamp/Tie down to purlins.

3.30 Erecting Precast/Pre-stressed Concrete Safely

Lifting members

- Communication is the key! The crane operator and one assigned signaler in the erection crew should use hand signals or two way radios.
- Be cautious during inclement, windy weather. High winds can increase the load or cause side loading on the boom and reduce its capacity.
- Before making a lift, review:
- How to use the required rigging
- Crane load tables
- Pre-casters recommendations on how to lift the member and how to upright the member, if required.
- Weights of members
- Clear the area around the member of obstructions and barricade the swing area of the crane and counterweight.

Setting, Connecting and Releasing Members

- Before beginning operations, address fall protection needs for all phases of construction.
- Use ladders, personnel lifts, or scaffolding to gain access for making connections.
- Before releasing a member from the crane, make sure it's securely connected.
- Do not use hands to reach under a member to adjust a shim or bearing pad.
- Ensure stability of the structure during erection by installing temporary bracing, shoring , and guying.

Crane Safety Guidelines

- Inspect ground conditions and soil compaction in areas where cranes will be travelling or operating.
- Fully extent outriggers. If outriggers cannot be fully extended, reduce crane lifting capacities to those shown on the chart for "on rubber".
- Use cribbing to spread outrigger loading. **Rule of thumb**: to determine the minimum square feet of blocking under each outrigger, divide the crane capacity (in tons) by five.
- Level cranes within 1 degree to eliminate side loading on the boom.
- Ensure that the load does not strike the boom or outriggers and never allow a crane boom to hit or touch any structure.
- Use an anti-two-blocking device to prevent contract between the load block and the boom tip.

Use a signaler when operating within a boom's length of power lines.

3.31 Placing Concrete

Place Concrete

- Using the truck chute to fill the form by backing up the truck or pulling it forward
- As close to its final location as possible - the less you move it the better
- Starting in a corner, then working away from the corner
- Starting at the low end and working uphill, of on a slope
- Into (instead of away from) fresh concrete
- Using square-mouth shovels or concrete rakes to move concrete; other tools cause segregation
- Have one and only one person directing the truck

Be Safe

- In addition of other safety requirements, when placing concrete workers should wear:
- Full length shirts and trousers
- Rubber boots and gloves
- Eye protection when exposed to concrete splatter

Warning: Fresh Portland cement concrete can cause skin irritation and burns. Injury may result from wet clothing. Wash skin promptly after contact.

3.32 Flagger Safety

For visibility, the flagger must:

- Wear a red or orange vest during the day and a reflector vest at night
- Use red 18-inch square flags for sign paddles
- Make sure the flagger station is well lit at night
- Wear hard hats & CSA approved steel toe boots

Flagger stations must be:

- Located far enough ahead of the work zone to give drivers time to reduce their speed and workers time to evade out of control vehicles. (Flaggers must have a signaling device such as a radio or air horn.)
- Located on the pavement shoulder or in closed lanes, not in a traffic lane.
- Adequately marked with warning signs.
- Manned by more than one flagger, if sight distance is inadequate.
- Manned by a certified flagger

When flagging:

- Stand alone. Don't allow co-workers to congregate around you
- Keep your eye on oncoming traffic.
- Designate a chief flagger when two flaggers are controlling alternate one-way traffic.

Use STOP and SLOW paddles as follows:

- TO STOP TRAFFIC - Face oncoming traffic and hold the STOP paddle in a vertical position at arm's length. For greater emphasis, raise your free arm, so your palm faces the traffic. Give traffic enough time to stop. Don't flash STOP
- When a driver is close.
- FOR TRAFFIC TO PROCEED - Stand parallel to the traffic movement and, with the SLOW paddle in a vertical position, motion traffic ahead with your free arm.
- TO SLOW TRAFFIC - To alert or slow oncoming traffic, face the traffic and hold the SLOW paddle in the vertical position at arm's length. For added emphasis, slowly raise and loser your free hand with your palm facing down.
- WHEN DELAYING TRAFFIC - Alert nearby drivers of the approximate time of and reason for the delays. Every reasonable effort should be made to prevent excessive delays.

3.33 Transportation of Dangerous Goods (TDG)

Anyone involved in the transport of dangerous goods must either be TDG certified, or be closely supervised by someone who is. If such work becomes a frequent part of the job, full training and TDG certification must be acquired.

TDG is governed by the Transportation of Dangerous Goods Act and is designed to protect the public, the environment and property from hazardous goods that are being transported.

The legislation applies to anyone transporting these goods and everyone who is required to handle these materials including: packers, shippers, and receivers.

Every time the goods are transported someone has to make sure that certain duties are carried out. The Regulations refer to this person as the consignor, or shipper – the one who offers the goods to transport. Someone who makes the arrangements for the materials to be transported from one site to another has the responsibility to fulfill the duties of the shipper before turning the shipment over to the carrier for transport.

The employee who actually transports dangerous goods may be both the shipper and carrier.

The **Consignor** must:

- Know the classification

- Complete a shipping document
- Mark and Label packages
- Ensure that placards are available, if necessary

The **Carrier** Must:

- Check the shipment
- Load the goods properly
- Attach placards, if necessary
- Carry and deliver the shipping documents with the goods

If an incident or spill involving dangerous goods occurs during any phase of transport, the person in charge of the goods at the time is responsible for reporting the incident.

The consignee or receiver only has one responsibility under the Transportation of Dangerous Goods Regulations: to keep a copy of the shipping document for 2 years. This requirement also applies to the consignor and carrier.

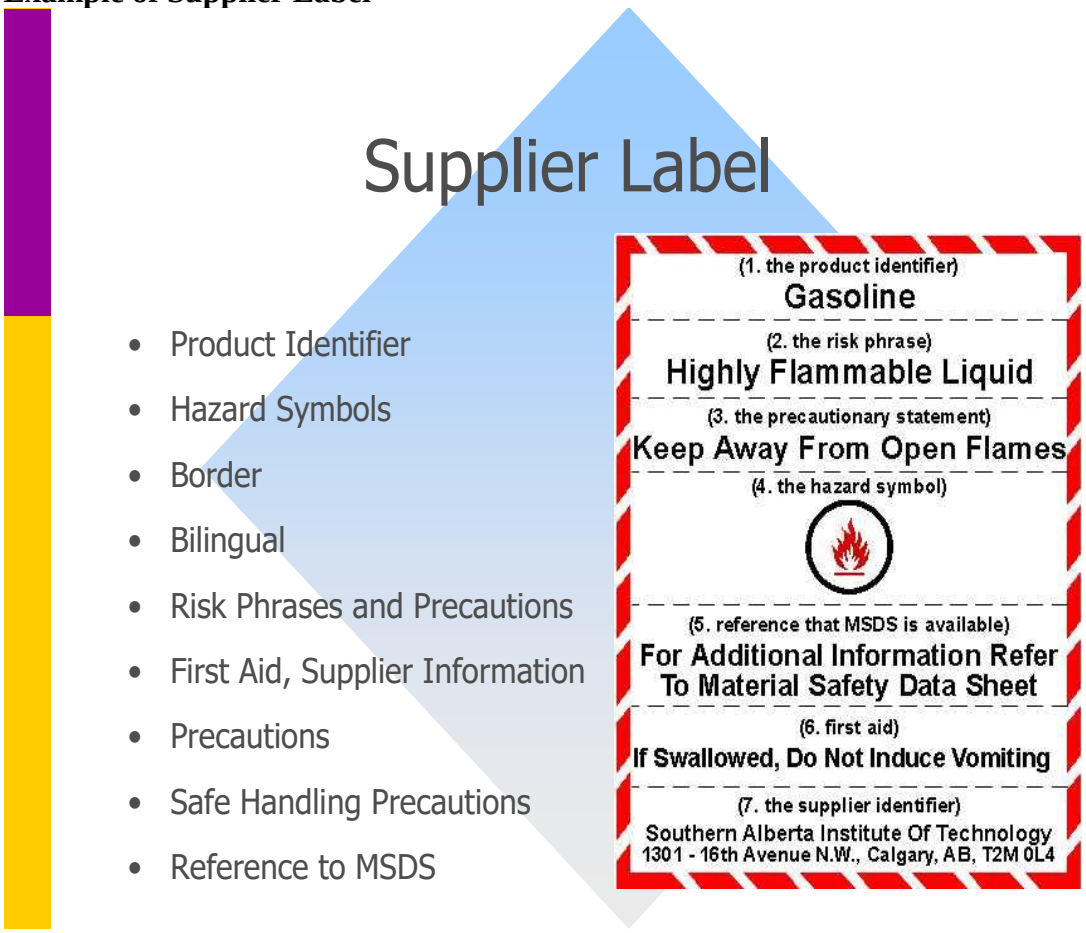
Under the Transportation of Dangerous Goods Regulation anyone who handles, offers for transport or transports dangerous goods must be trained and certified.

The Certificate of training is issued by the U.A.E Safety Association, but is not valid unless it is signed by the employer.

A Typical Supplier Label and Required Content

Employers must ensure that supplier-provided containers of controlled products are labeled with WHMIS supplier labels. As long as a controlled product remains in the supplier-provided container, the supplier label must remain attached to the container and be legible. For normal day to day use of controlled products, employers are required to furnish some form of workplace warnings such as labels, tags or markings. Although there is no specified format for workplace labeling and other forms of hazard warnings, information on safe handling and a product identifier (e.g., brand name, code name, or the chemical name of the product) must be provided. **Reference must also be made to the availability of a MSDS. (If there is no MSDS then you MAY NOT use the product!)**

Example of Supplier Label



A Typical Workplace Label

ACETONE
KEEP AWAY FROM HEAT, SPARKS & FLAME
AVOID BREATHING VAPOR
See material safety data sheet

3.34 100% Tie Off in Scissor Lifts

Purpose:

The purpose of this policy is to ensure the safety of all workers using a scissor lift.

Policy:

It is the policy of ABR Al Bihar F.F & Safety Equip. Inst. based on manufactures recommendations that anyone using a scissor lift, at all times (no exceptions) will use a travel restraint system consisting of a full body harness and lanyard, connected to an approved manufacture's anchor point and is short enough to prevent the worker from falling out of the scissor lift.

Signed:_____ Dated:_____

Khalid Yasin, Managing Director

3.35 MUSIC DEVICE POLICY

The purpose of this policy is to outline and clarify the restricted use of music devices including, but not limited to, iPods, MP3 players, CD players, and radios with or without headphones at ABR Al Bihar F.F & Safety Equip. Inst. jobsites. These rules are in place to protect the workers and the Company.

Inappropriate use of music devices endangers workers, both the individual using the device as well as workers working alongside the individual. The use of any music device, in the workplace, has the potential to distract the worker and may interfere with the proper and safe use of equipment and machinery. It may limit their ability to hear alarms or sirens, calls from co-workers or instructions from Supervisors, which could create potential serious situations and increase the risk of an accident. The use of a music device poses a risk that the music itself and/ or the accompanying headphones may get tangled in machinery or interferes with the proper use of PPE.

It is the policy ABR Al Bihar F.F & Safety Equip. Inst., that workers may not use any music device in the workplace, while they are working. The only areas the use of music devices will be permitted will be confined to the lunchroom / break room areas, specifically designated as such, while the worker is not working. ie: coffee and lunch breaks. At all other times and locations within the workplace area, the use of music devices is prohibited. This policy applies to all workers, contractors, consultants, subcontractors, sub-subcontractors, suppliers, temporary workers, and any other third party personnel working at Company jobsites.

Workers who violate this policy will be subject to disciplinary measures up to and including dismissal, depending on the circumstances.

Signed:_____ Date:_____

Khalid Yasin, Managing Direct

3.36 Hazardous Energy Control Procedure

Hazardous Energy can come from:

Electrical
Mechanical
Gas

Lockouts will be used to control these hazards and the workers will be trained to do the lockout on the specific equipment producing or potentially will produce the hazard.

Electrical panels will have a supervisor's multiple lockout devices to accept other workers lock this device will be secured to the Electrical panel switch handle in the off position.
The Supervisor will put his lock on the multiple lockout devices and so will the worker(s) doing the work. Check all the equipment to be worked on that it is not energized. When the work is completed the worker(s) will take their locks off and notify the supervisor to take his / her lock and clamp off so they can turn the Electrical Panel back on.

All locks must have a DO NOT REMOVE tag with the following information on it.

Persons Name Printed Legibly
Date and Time Installed
Work Being Done

Gas line valves supplying equipment to be worked on must be locked out in the closed position, bleed off and test for any Gas present. The Supervisor will put a multiple Lockout device on the Gas Valve handle in the closed position then the worker(s) will put their lock on the multiple lockout devices with the following information.

Persons Name Printed Legibly
Date and Time Installed
Work Being Done

When the work is completed the worker(s) will remove his / her lock, notify the Supervisor and then the multiple lockout device can be removed.

The worker(s) will do a thorough inspection of the equipment before starting.

Mechanical:

Where there is Danger or Potential Danger from the inadvertent movement of a mechanical device (i.e. huge pressure pump, counter weight) then the Mechanical energy must be controlled prior to starting work on the equipment.

Release the stored mechanical energy; be careful of the springs, tension or gravity.
Use block cables or chains to create a zero potential energy state.

DO NOT START tags must be put on all points where the equipment can be started from.

Tags must have the following information

Persons Name Printed Legibly
Date and Time Installed
Work Being Done

When the work is completed the worker(s) must remove the tags and the lockout mechanism used, the worker(s) must do a thorough inspection of the equipment prior to starting.

3.37 Working near overhead power lines

The first step t working safely around power lines is to call the utility to determine all power lines in the project area.

The Danger of overhead power lines is that there is no protection on the wire. Electricity is looking for a path to ground, so if you contact an overhead wire you or the equipment you're operating will be its path to the ground.

Check with the local utility to identify voltages on any overhead lines and determine the required limits of approach.

In U.A.E, if the Voltage is unknown, no work is permitted within 7 meters of energized electrical equipment. Once the safe distance has been determined, NO work can encroach on this distance.

Use caution when using tools around overhead lines, this includes but not limited to Cranes, Backhoes, Aerial Lifts, Rough Terrain Forklifts, Ladders, scaffolding, or long lengths of pipe.

If a large piece of equipment such as a crane runs the risk of encroaching on the safe Zone, a designated spotter whose only job is to maintain the safe zone must be assigned.

The local utility may be able to install “line Identification” This is a PVC pipe not for protecting the lines, but to make them easier to be seen.

Lines may sometimes be temporarily moved or protected, contact the local utility for clarity and NEVER attempt to do this kind of work get the utility to do this work for you.

Excavations in the vicinity of power poles can be dangerous. Soil near the base of a pole must not be disturbed without consulting with the local utility.

Spoil piles should not be located under power line; this reduces the clearance and could create a hazard.

If power lines are contacted or torn down, stay clear- at least 10 meters- and call the Electrical utility in your area. Call Emergency Services for assistance.

3.38 Confined Space

Areas that are or could become Oxygen deficient
Extreme heat or cold
Dangerous levels of toxic material or fumes
Flammable vapors and liquids
Skin and Throat Aggravation

Test the confined space for oxygen levels between 19% and 21% no less than 18%
Test for the presence of CO, H2S, if present the space must be ventilated to reduce levels. Concentrations must be below occupational exposure limits specified in OH&S schedule.

NOTE: This safe work practice is for Sewer Pipes, Manholes, or Excavations over 1.5 meters deep.

A safe work practice for Vessels, Tanks, Ovens with Pipes supplying Toxic Chemicals, Gas etc. will have EXTRA PRECAUTIONARY STEPS.

A Competent Emergency Watch person must be at the Entrance / Exit at all times, if that watch person has to leave another Competent Emergency Watch Person must replace him / her.

The Emergency Watch Person must be able to communicate at all times with the worker(s) inside.

Have a tripod set up with a winch attached for rescue if needed.

Have an air horn to be sounded in case of an Emergency.

Ready with a Self Contained Breathing Apparatus (SCBA) if needed

When leaving the confined space and expecting to return later a "DO NOT ENTER" sign must be put at the entrance.

Workers must wear a CO; H2S monitor and be set to sound an alarm at 10ppm for H2S and 25ppm for CO as per the Occupational exposure limits.

Workers must wear a harness and be hooked up to a safety cable and winch when working in an area where the worker could be overcome by toxic fumes or gases.

Workers must be trained in the use of gas testing and detection equipment.

Workers must wear PPE appropriate to the conditions where they will be working.

3.39 Working in Cold Weather

Working in the cold can result in hypothermia or frostbite and even the heavy and bulky clothing worn for protection from the cold can cause problems on the work site.

Hypothermia, or below-normal body temperature, is generally the result of a combination of factors, including cold and windy weather, fatigue and clothing that is poorly insulated or wet.

There is a range of outward signs of hypothermia, depending on the severity.

Mild hypothermia: mild shivering, discomfort and muddled thinking.

Moderate hypothermia: violent shivering, loss of dexterity of the hands and feet, and an inability to think or pay attention.

Severe hypothermia: unconsciousness and death.

When working in cold weather, employers and workers should take these precautions:

- Wear several layers of clothing rather than one thick layer.
- Wear gloves and a helmet liner under the hard hat.
- Wear synthetic or cotton next to the skin to wick away sweat.
- Wear warm footwear with one or two pairs of warm socks; footwear should not fit too tightly because it will restrict blood flow and cause more harm than good.
- Take frequent short breaks in a warm shelter to allow the body to warm up.
- Avoid exhaustion or fatigue because energy is needed to keep muscles warm.

- Drink warm, sweet beverages and avoid drinks with caffeine or alcohol.
- Eat warm, high calorie food such as pasta dishes.

Workers who take certain medications, are in poor physical condition or suffer from illnesses such as diabetes, high blood pressure, or cardiovascular disease are at increased risk and should therefore check with their doctor for additional advice.

3.40 Working in the heat

Heat stress is the overall heat load on the body, including environmental heat and inner body heat production due to working hard. Mild or moderate heat stress may be uncomfortable and may affect performance and safety, but it is not usually harmful to your health. When heat stress is more extreme, the possible health effects include:

- **Heat rash** tiny red spots on the skin, which cause a prickling sensation. The spots are the result of inflammation caused when the sweat glands become plugged.

- **Heat exhaustion** is caused by excessive loss of water. Symptoms include heavy sweating, weakness, dizziness, nausea, headache, diarrhea, and muscle cramps.

- **Heat stroke and hyperpyrexia** (elevated body temperature) are the most serious types of heat illnesses. Signs of heat stroke include body temperature often greater than 41 degrees C, and complete or partial loss of consciousness. The signs of heat hyperpyrexia are similar except the skin remains moist, Sweating is not a good symptom of heat stress as there are two types of heat stroke – "classical" where there is little or no sweating, and "exceptional" where body temperature rises because of strenuous exercise or work and sweating is usually present.

In situations such as heat waves (3 or more days of temperatures of 32 degrees or over) where the worker will be working continuously in a hot environment, supervisors are responsible for ensuring their workers are acclimatized based on the following criteria:

- If the worker is experienced on the job, their time in the hot environment must be limited to 50% of the shift on the first day, 60% of the shift on the second day and 80% of the shift on the third day. On the fourth day a full shift can be worked.

- If the worker is not experienced on the job they should spend 20% of their time working in hot conditions on the first day and increase by 20% each subsequent day.

When and where applicable, reduction of physical demands of work tasks should be done through mechanical assistance such as hoists, carts, etc.

Workers will be provided with water and be reminded to drink a cup approximately every 20 minutes.

Workers should take more frequent and longer breaks if possible in shaded and cooler areas.

3.41 Fatigue and Safety in the Workplace

Fatigue is a feeling of tiredness or exhaustion that comes from physical or mental exertion; it is a message to the body to rest. It can be aggravated by the lack of sleep or an accumulated sleep deficit. It can cause slower reaction time and can result in poor decisions, more mistakes, decreased performance, and dangerous lapses from micro sleeps and automatic behavior. Fatigue has a significant influence on the Health and Safety both at work and at home. When it comes to work and fatigue, research shows that the probability of a workplace incident rises and falls with alertness. Research also shows that fatigue can impair in the same way as alcohol consumption.

Fatigue can be caused by long hours of work, long hours of physical or mental activity, inadequate rest, and excessive stress at work or at home, and combinations of these factors. Signs of fatigue will vary from worker to worker, typical physical signs and symptoms are:

- Tiredness
- Sleepiness, including falling asleep against the workers will (micro sleeps)
- Irritability
- Depression
- Loss of appetite
- An increased susceptibility to illness

Fatigued workers may have their ability to perform mental and physical tasks impaired some of these impairments are:

- Slowed reactions- physical reaction speed and speed of thought
- Failure to respond to changes of the surroundings
- Incorrect actions either physical or mental
- Flawed judgment and an inability to concentrate
- Increases in memory errors, including forgetfulness
- Decrease in vigilance
- Increased tendency for risk-taking

Listed below are just a few ways for fatigue prevention

- Discuss fatigue and make all workers aware of the dangers of being fatigued at work
- Assess and control hazards and risks
- Recognize individual and crew fatigue

- Take short and frequent breaks.
- Be accommodating and supportive when dealing with a worker with problems at home

Two or three times a year Superintendents and Foremen are to discuss fatigue at the weekly toolbox meeting and how it affects worker performance especially when working in a DANGER zone; ensure that all tasks are performed with a safe and healthy approach. Get the Safety Manager involved if you have a case that requires professional medical help.

3.42 Fall Protection

In keeping with occupational Health and Safety Code Part 9 ABR Al Bihar F.F & Safety Equip. Inst. requires all workers to use a fall protection system at a permanent or temporary work area where a worker may fall 3 meters or more, or if there is an unusual possibility of injury if a worker fell less than 3 meters.

ABR Al Bihar F.F & Safety Equip. Inst. Superintendents, Foremen and workers will be provided fall protection training and instruction. This training and instruction will be done again prior to the 3 year expiration to stay current.

Superintendents are responsible to ensure that all new or transferred workers have the required and current fall protection training. The Superintendents will notify the Safety Manager of anyone needing fall protection training so training can be registered for the earliest available course.

Superintendents are responsible to check sub-contractors workers for proof of fall protection training, failure to show a valid current fall protection training card will result in the worker not being allowed to work in the area where fall protection is required.

3 b. Job Procedure

Job: Changing a flat tire on all 3/4 ton trucks

Tools/Equipment required: Axle jack (as supplied with vehicle)
1 wheel wrench (as supplied with vehicle)

Materials required 1 spare tire - a fully inflated tire mounted on a rim

Steps:

1. Park vehicle on firm level ground, away from traffic.

2. Shut off engine, place gear shift lever in “Park”, and set parking brake.
3. Remove jack, wheel wrench and spare tire from truck.
4. Using wheel wrench, pry off hub cap from wheel that has flat tire.
5. Again using the wheel wrench, loosen the lug nuts by turning counter clockwise 1/4 turn.
6. Place jack under axle as near as possible to flat tire.
7. Ensure that bystanders are at least 10 feet away from the vehicle.
8. Crank jack until flat tire is clear of the ground.
9. Using wheel wrench, remove all lug nuts. Place nuts in hub cap.
10. Grasp tire at 4 o’clock and 8 o’clock points, remove and set aside.
11. Grasp spare tire as above and set in place over wheel lugs.
12. Replace all lug nuts and tighten until wheel is in place.
13. Crank jack down until it is clear of axle and remove thus placing the tire on firm ground.
14. Using the wheel wrench, tighten all the nuts. Tighten every second nut in sequence, a little at a time, until all nuts are as tight as they were originally.
15. Replace the hub cap.
16. Place jack and crank as per directions inside hood lid.
17. Check the area and clean up if required.
18. Make arrangements to have flat tire repaired as soon as possible.

JOB PROCEDURE

Starting Equipment (Cold Starts)

P.P.E.

1. Hard hat
2. Steel toes boots
3. Safety glasses

Procedure

1. The mechanic/operator will check all appropriate fluid levels in equipment.

2. The mechanic/operator will do a visual inspection of equipment pertaining to leaks, belts, etc.

3. The mechanic/operator will do a walk around the equipment to make certain the equipment is safe to start

4. The mechanic operator will climb on equipment using the three point contact method, and check for any danger. Do not operate if there are lockout tags.

5. If there are no such lockout tags on the equipment, then the mechanic/operator checks to make sure the equipment gears are in neutral and checks that the park and emergency brakes are activated.

6. The mechanic/operator proceeds to start engine.

7. Once engine is running at an idle, the mechanic/operator will check again all park and emergency brakes and drop all hydraulic accessories such as blades, bowls, buckets, etc.

8. The mechanic/operator will dismount safely from equipment.

9. The equipment should not be left idling for more than 15 minutes.

JOB PROCEDURE

Setting up Oxygen/Acetylene Cutting Torch Equipment

Tools/Equipment

Oxygen bottle
Acetylene bottle
Cutting torch assembly
Vented area
Proper wrenches

Procedure

1. Choose a low traffic and well ventilated area for your set up.
   Note: Please secure bottles (if free standing) from falling over!

2. Remove oxygen cylinder cap and check for debris inside valve. Install oxygen regulator:
   - regulator adjusting screw to be turned out (counter clockwise);
   - attach green hose with flame arrestor to regulator and to torch outfit (clockwise/right hand threads).

3. Remove acetylene cylinder cap and check for debris inside valve. Install acetylene regulator:
   - regulator adjusting screw to be turned out (counter clockwise);
   - attach red hose with flame arrestor to regulator and to torch outfit (counter clockwise/left hand threads).

4. Before cylinder valves are turned on, make sure torch valves are turned off:
   - turn on oxygen cylinder on nice and slow (this prevents wear and tear/damage to regulator) and open fully. Key type should be open one and a half turns;
   - check for leaks between regulator and cylinder.

5. Turn oxygen regulator adjusting screw in (clockwise). Your green line will now be charged with oxygen. Check for leaks between regulator and torch. Check hose as well. Open torch valve to blow out line then close it.

6. Turn acetylene regulator adjusting screw in (clockwise). Your red line will now be charged with acetylene. Check for leaks between regulator and torch. Check hose as well. Open torch valve (vented area) to blow out the line, then close it.

7. Leak check may be done with soapy water.

8. After “no leaks”, adjust regulators for proper mixture (7 lbs acetylene to 25-30 lbs. oxygen). This is done by using the adjusting screw on the regulators.

9. Use approved striker only for torch ignition.

<u>Unsafe Practices:</u>

1. Cracking open bottles to see if full or not. (use appropriate regulator with the adjusting screw fully out.)

2. Transporting bottles lying down.

3. Storing this equipment (oxygen/acetylene) inside a non-ventilated space.

4. Heating up the acetylene bottle with propane to get more fuel out.

5. Using sources of ignition other than a striker.

JOB PROCEDURE

Shutting Down Oxygen/Acetylene Cutting Torch Equipment

Tools/Equipment

Oxygen bottle
Acetylene bottle
Cutting torch assembly
Vented area
Proper wrenches
Security rope, cable or chain
Bottle caps
Secure storage area

Procedure

1. Close both oxygen and acetylene torch valves.
2. Close both oxygen and acetylene cylinder valves.
3. Open the torch oxygen valve to release all pressure from the hose and regulator.
4. Turn out the oxygen regulator adjusting screw (counter clockwise).
5. Close torch oxygen valve.
6. Open the torch acetylene valve to release all pressure from hose and regulator (vented area).
7. Turn out the acetylene regulator adjusting screws (counter clockwise).
8. Close torch acetylene valve.
9. Disconnect regulators from bottles.
10. Replace bottle caps.

Note: - Care and attention be given to the handling of these regulators.
- Storage of bottles in a ventilated area and minimum of 25 feet from each other

(oxygen from acetylene).
- Mark and separate empty bottles from full ones.

Unsafe Practices:

1. Cracking open bottles to see if full or not. (use appropriate regulator with the adjusting screw fully out.)

2. Transporting bottles lying down.

3. Storing this equipment (oxygen/acetylene) inside a non-ventilated space.

4. Heating up the acetylene bottle with propane to get more fuel out.

5. Using sources of ignition other than a striker.

JOB PROCEDURE

Use of Explosive/Powder Actuated Fastening Tools

Tools/Equipment/Materials

Hilti 350 or similar
Shot cartridges - green, yellow, brown, red, purple
Nails - 3/4" - 2 1/2"
Cleaning Kit and Lubricant
Personal Protective Equipment, this includes hearing protection
Valid Explosive/Powder actuated tool ticket

Procedure

1. Refer to this manual's Safe Work Practices and OH&S regulations before operating this equipment.

2. You must be instructed and trained on each model of tool to be used.

3. Check tool over for free movement of parts. Clean and lubricate if necessary.

4. Put on personal protective equipment for head, eyes, ears, feet and skin.

5. Choose the correct nail size and shot strength. Remember green is the weakest and purple is the strongest. Your shot selections are green, yellow, brown, and red, purple. Do sample shot if necessary. Recommended shot for concrete is yellow and steel is red

6. Pump tool to retrieve the piston.

7. Insert proper shot strength.

8. Load the nail at the end of the barrel **only when you are ready to use tool. (Never carry a loaded gun)**.

9. Press the tool end onto the material to be fastened.

10. Ensure the tool is perpendicular to the material being fastened.

11. Squeeze the trigger to activate tool.

12. Expel used shot, re-load nail and repeat.

13. Spent cartridge should be picked up and put in the refuse container. All cartridges must be completely 'fired' before they are discarded.

14. Always store tool in the plastic case it comes in and return to the tool storage.

Note: Depending on the tool's duration of use, it may require a cleaning and lubrication part way through the day. Refer to Manufacturer's recommendation as minimum maintenance requirements.

If not used properly, this tool can cause serious bodily harm to the operator or others nearby. Please be responsible.

JOB PROCEDURE

Use of Fire Extinguisher (Dry Chemical)

Note: Although most extinguishers are similar, take a quick moment to look over the extinguisher before using. This procedure is primarily for extinguishing flammable liquids.

Materials

Filly charged fire extinguisher
Gloves
CSA approved hard hat
CSA approved work boots
Dust mask

Procedures:

1. Remove extinguisher from hanger or storage compartment.

2. Pull release pin.

3. Point extinguisher at the base of the fire and engage extinguisher.

4. Start with a short burst at the base of the fire and use a swinging motion from left to right always keeping the fire in front of you.

5. After fire is extinguished, check extinguisher gauge to see if it requires recharge. If a recharge is required write this on a tag, tag the extinguisher and return to superintendent or foreman.

JOB PROCEDURES

Hand Grinding Steel

Tools/Equipment

Hand held grinder
Cup stone
Personal protective equipment for eyes, ears, head, skin, feet, nose and lungs.
Extension cord - 14 gauge, 3 wire, maximum 100'.

Procedures:

1. Check to make sure the maximum number of revolutions per minute identified on the abrasive wheel or disc is compatible to the maximum grinder revolutions.

2. Check over grinder for any maintenance problems.

3. Make sure guard is in place.

4. Make sure grinding wheel of disc is recommended for grinding steel.

5. Wear complete personal protective equipment including a long sleeved shirt.

6. Make other workers aware of grinding taking place in your area. Erect signs if necessary. Erect shield to deflect sparks and filings.

7. Check grinding wheel for chips or other potential hazards. Replace if necessary.

8. Ensure grinder is brought up to full speed before applying pressure to grinder and material being ground.

9. Clean up filings.

10. Return grinder to tool storage.

Note: Also refer to Safe Work Practices for grinding in this manual.

JOB PROCEDURES

Grinding Steel

Procedure:

1. Check to make sure the maximum number of revolutions per minute identified on the abrasive wheel or disc is compatible to the maximum grinder revolutions.

2. Check over grinder for any maintenance problems.

3. Make sure guard is in place.

4. Make sure grinding wheel or disc is recommended for grinding wheel.

5. Always wear full face shield.

6. Wear long sleeved shirt.

7. Make other workers aware of grinding taking place in your area. Erect signs if necessary.

8. Check grinding wheel for chips or other potential hazards. Replace if necessary.

9. Ensure grinder is brought up to full speed before applying pressure to grinder and material being ground.

10. Remove grinder from surface being ground before switching grinder of.

JOB PROCEDURES

Starting a Chain Saw

Tools/Equipment:

Chain saw
Can of gas/oil mixed fuel 40:1
Bottle of chain oil

Procedure:

1. Fill up chain saw with mixed fuel, 40:1.
2. Fill up chain oiler with chain oil.
3. Place chain saw on the ground.
4. Put start switch to on position.
5. Pull choke switch on.
6. Lock throttle trigger on.
7. Place your foot or hand on chain saw securing it in place.
8. With other hand, grasp start rope.
9. Give start rope on or two short, rapid pulls. If chain saw starts, put choke switch off.
10. If saw has not started after initial one or two pulls, repeat pulls on start rope with the choke off.

JOB PROCEDURES

Defective Tools

Material:

Red defective tool tag
Tie wire

Procedure:

1. Obtain tool tag and tie wire from site office.
2. Write on tag what you believe to be the problem with the tool.
3. Tag faulty tool.
4. Notify supervisor of faulty tool.
5. Leave tool in supervisor's office.

JOB PROCEDURE

How to Lift

Procedure:

1. Look over the object to be lifted. Make sure that it is not too heavy or clumsy for good balance. Make sure path is clear.
2. Stand close to the load with your feet apart for good balance. Make sure your footing is secure and there is no tripping or slipping hazard.
3. Bend your knees put yourself in the best possible position for the lift. Avoid twisting the wrist, reaching out, and or leaning over material or equipment. Use a wide balance stance with one foot slightly ahead of the other. Maintaining the curve in your back.
4. Get a good grip to ensure the load is secure in your hands.

5. Maintain the natural curve of your back. Lift gradually bend your knees and lower with your legs avoid twisting/quick jerky motions. You can injure yourself just as easy, lowering a object as lifting it.

6. Some objects may require a variation of the techniques above.

Note: If the object is too heavy, large, long or hard to handle or must be placed higher than the waist, try team lifting where 2 or more people work together. The people should be about the same size. One person should give clear signals so the effort is made together.

Job Procedure

Working alone

1. A worker must have a helper if the work being done is determined to be high risk.

- Working from heights
- Working in confined spaces (under current OH&S Regulations, a worker is not permitted to work alone in a confined space)
- Working in isolation from first aid services or immediate / emergency assistance
- Working with hazardous substances or materials
- Working with electricity
- Working with material under high pressure
- Working where there is a possible threat of violence

2. If an employee is working in an area where there is a lack of communication due to cell phone or radio coverage, the employee must take a helper with them to the job for support.

3. If the job site has a crew present and the task will stretch into the after hours of normal work, arrangements with the Superintendent / Foreman must be made to have someone from the crew stay with the employee until the task is completed or the work is done for the day.

4. The Superintendent / Foreman and the worker will determine call-ins.

- Upon arrival, morning break, lunch, afternoon break and departure.

- Or at specified intervals of time (i. e. hourly)

4. Rules

GENERAL CONSTRUCTION SAFETY RULES

1. Hard hats, as approved safety boots, and reflective vests, shall be worn on the job by construction personnel.

2. Clothing shall be appropriate to duties being performed.

3. Face shields must be worn when chipping concrete, welding, cutting metal using a grinder, chop saw or cut off saw. Safety glasses are required for other operations such as using a circular saw, table saw or hammering metal.

4. Possession or use on the construction site of alcoholic beverages or unauthorized drugs, or being under the influence of alcohol or drugs when arriving onsite, is strictly forbidden.

5. Horseplay, fighting, running, inappropriate behavior are strictly forbidden.

6. Riding on equipment is prohibited. No person shall ride any hook, hoist or other material handling equipment which is used strictly for handling material and not specifically designed to carry riders.

7. Smoking is permitted only in designated areas.

8. Hand tools shall not be used for any purpose other than that intended. All damaged parts shall be promptly repaired or replaced.

9. Power tools shall be operated with guards furnished by the manufacturer “in place”.

10. All electrical hand tools shall be grounded or double insulated.

11. Explosive/powder actuated tools shall be used only by persons who have been instructed and trained in their safe use.

12. Compressed gas cylinders shall be secured in an upright position.

13. Welding and burning operations shall be carried out **only** by authorized personnel with appropriate individual protective equipment.

Accidents, injuries or “near misses” regardless of their nature, shall be promptly reported to job superintendents.

Company vehicles driven by ABR personnel only with valid driver's license.

4.1 Enforcement Policy

4.1 Enforcement Policy

ABR AL Bihar F.F & Safety Equip. Inst. expects the full cooperation of all personnel/sub trades in maintaining a safe worksite. All personnel/sub trades must follow all **ABR** health and safety rules, safe work practices, work directives and procedures for the task assigned. All personnel/sub trades must adhere to the O.H. & S. legislated acts, regulations, laws and codes.

No worker shall enter the worksite under the influence of alcohol or drugs. Use of such items on the worksite shall be cause for permanent removal from the worksite.

ABR representative at the worksite has the responsibility and authority to consistently administer the enforcement policy to any worker who violates the health and safety regulations.

1st offence - verbal warning
2nd offence - written warning
3rd offence - 24 hour suspension
4th offence - permanent dismissal

Documentation will be done at each stage of the enforcement policy.

It will be **ABR AL Bihar F.F & Safety Equip. Inst.** responsibility to ensure that employees receive adequate training in the areas to be enforces. Employees will be instructed what the enforcement policy is upon commencement of employment.

Signed: _____ Date: _____
Khalid Yasin, Managing Director

4.2 First Warning Letter

To: _____ Date: _____

Attention _____:

Please be advised that this is your first written warning which has been preceded by a verbal warning on _____ for violation of our company rules and safety policies.

Type of violation committed:

_____
_____
_____
_____
_____

Please be advised that any further violation will result in a 24 hour suspension. Please help us to keep you and your fellow workers safe on our jobsites.

Thank you in advance for your cooperation.

Yours truly,

_____
Site Superintendent
ABR AL Bihar F.F & Safety Equip. Inst.

White - Office Yellow - Site Pink - Safety Manager

4.3 General Safety Rules and Regulations

4.3.1 Reporting Injuries and Accidents

a) All your personal injuries must be reported immediately to your supervisor who must arrange for first aid or medical attention.

b) All accidents involving damage to materials, structures, equipment, and property, shall be reported to your supervisor at once and accident reports or statements must be completed as directed.

c) ABR Safety Coordinator to be notified of all personal injuries.

4.3.2 Reporting Unsafe Conditions, Equipment and Tools

- Report unsafe or hazardous conditions, equipment, tools and work procedures immediately to your supervisor so that remedial action can be taken to prevent accidents.

4.3.3 Good Housekeeping

- Good housekeeping on the job is mandatory and every employee must do his part daily in this activity to ensure the job is done efficiently and safely.

4.3.4 Alcohol and Drugs

- No person shall sell, possess, consume or be under the influence of any alcohol or illegal drugs while on the construction site or while enroute to or from the site.
- Non-compliance will be considered grounds for immediate removal from the site and further disciplinary action up to and including termination of employment.

4.3.5 Rowdiness

- Rowdiness, horseplay, practical jokes, gambling, stealing, sleeping or fighting have absolutely no place on the construction site and shall be considered grounds for immediate removal from the site and termination.

4.3.6 Lifting

- Unsafe lifting positions, such as lifting from an uncomfortable position, lifting with back instead of leg and thigh muscles, and over-lifting causes many painful injuries. If the object is too heavy or awkward to handle, get help or use a mechanical device.

4.3.7 Existing Equipment

- Work around existing equipment which is energized or pressurized requires a hot or cold work permit from ABR. Employees working around such existing equipment shall not proceed until they have specific knowledge that a work permit is in place and they have been cleared by their supervisor to commence work.

4.3.8 Vehicle Operation

a. Each vehicle driver and operator of rubber tired construction equipment shall comply with project speed limits and traffic control procedures. Unless otherwise posted, speed limits will be 10 km/hr. on facilities sites, and 50 km/hr. on municipal roads (for driving during the course or work).

b. No vehicle with an obstructed rear view shall be backed up unless an observer signals that it is safe to do so and the vehicle is equipped with an operating back up alarm signal that is audible above the surrounding noise.

c. Any person driving on the construction site right-of-way shall have his vehicle lights on and all occupants of the vehicle shall be wearing seat belts.

d. No employee may be transported in a vehicle unless approved seating is available to him.

e. There shall be absolutely no riding on the sides of motor vehicles or equipment.

f. Private vehicles are not allowed on construction sites unless in a parking area designated by the superintendent.

g. Vehicles shall be operated at all times in a safe and courteous manner.

4.3.9 Firearms

- Conveyance or use of firearms on the construction site is strictly prohibited.

4.3.10 Radio Equipment

- Radio or tape head phones shall not be permitted on site since they could render the user unaware of potential dangers and could be a source of ignition.

4.3.12 Smoking

- Smoking will be allowed only in areas designated by the superintendent.

4.3.13 Sanitation

- Employees shall use the toilets which are provided.

4.3.14 Compressed Air

- Compressed air shall not be used for blowing dust or other substances from clothing worn by worker.

4.3.15 Gas Cylinders

a. If transported by crane, hoist, or derrick, gas cylinders must be handled in suitable crates, nets, or skip boxes, never by rope or chain slings. Valve guards shall be installed when cylinders are transported.

b. Gas cylinders must be secured in an upright position at all times to prevent falling.

c. Oxygen cylinders must never be stored near highly combustible materials, especially oil and grease, or near other fuel gas cylinders.

Acetylene cylinder must be used in vertical position.

5 Policy for Personal Protective Equipment

Purpose

The purpose of this policy is to minimize injuries to employees by utilizing personal protective equipment.

Policy

It is the policies of this company to have all employees use the proper PPE as follows.

Employees of this company will wear hard hats, safety footwear, high visibility vest, work grade long trousers, work grade long sleeved shirts (long sleeved as required) CSA Grade 1 high cut boots, at all times when at work sites, These requirements do not apply to employees when they are inside offices, lunch rooms, or the cabs of vehicles.

All PPE used by this company will conform to O.H. & S. regulations.

The company will supply all other required specialty PPE. The company will maintain all specialty type PPE according to manufacturer's instructions.

*** The safety information in this policy does not take precedence over O.H. & S. Regulations. All employees should be familiar with the O.H. & S. Act and Regulations.**

Signed:_____ Date: _____
Khalid Yasin, Managing Director

5.1 Foot Protection

General Information

Safety footwear is designed to protect against foot hazards in the workplace. Safety footwear protects against compression, puncture injuries, and impact.

Safety footwear is divided into three grades which are indicated by colored tags and symbols.

The **tag color** tells the amount of resistance the toe will supply to different weights dropped from different heights.

The symbol indicates the strength of the sole. For example, a **triangle** means puncture-resistant sole able to withstand 135 kg (300 lbs) of pressure without being punctured by a 5 cm (2 inch) nail. For more information, look at Alberta's O.H. & S. Statute and Regulations or CSA Standard "Protective Footwear" Z195-M1981.

In construction, it is recommended that only the **green triangle** grade of footwear, which also gives ankle support, be used.

Your choice of protective footwear should always over protect, not under protect.

Do

- Choose footwear according to job hazard and CSA Standards.
- Lace up boot and tie laces securely; boots don't protect if they are a tripping hazard or fall off.
- Use a protective boot dressing to help the boot last longer and provide greater water resistance (wet boots conduct current).
- Choose a high cut boot to provide ankle support (fewer injuries).

Don't

- Wear defective safety footwear (i.e. exposed steel toe caps).
- Under protect your feet or modify safety footwear.

5.2 Head Protection

General Information

Safety headwear is designed to protect the head from impact from falling objects, bumps, splashes from chemicals or harmful substances, and contact with energized objects and equipment.

In construction, the recommended type of protective headwear is the Class B hard hat which has the required "dielectric strength". There are many designs but they all must meet the CSA requirements for Class B industrial head protection.

Most head protection is made up of two parts:

- the shell (light and rigid to deflect blows)
- the suspension (to absorb and distribute the energy of the blow)

Both parts of the headwear must be compatible and maintained according to manufacturer's instruction. If attachments are used with headwear, they must be designed specifically for use with the specific headwear used. Bump caps are not considered a helmet. In Alberta they can only be used when the only hazard is where a worker might strike his/her head against a stationary object.

Inspection and Maintenance

Proper care is required for headgear to perform efficiently. The service life is affected by many factors including temperature, chemicals, sunlight and ultraviolet radiation (welding). The usual maintenance for headgear is simply washing with a mild detergent and rinsing thoroughly.

Do

- Replace headgear that is pitted, holed, cracked or brittle.
- Replace headgear that has been subjected to a blow even though damage cannot be seen.
- Remove from service any headgear if its serviceability is in doubt.
- Replace headgear and components according to manufacturer's instructions.
- Consult O.H. & S. or your supplier for information on headgear.

Don't

- Drill, remove peaks, and alter the shell or suspension in any way.
- Use solvents or paints on the shells (makes shells "break down").
- Put chin straps over the brims of Class B headgear.
- Use any liner that contains metal or conductive material.
- Carry anything in the hard hat while wearing the hard hat.

5.3 Safety Belts Lanyards and Life-Lines

General Information

Harnesses are used in construction to provide workers working at heights above ground level with freedom of movement and protection from falls. These devices will arrest a fall and absorb some of the shock of the fall. The systems are usually worn around the body and attached to a lanyard, fall arresting device or rope grab. Better quality systems usually have some form of shock absorber in the system.

If the fall to be arrested is short (less than two feet or 0.6 m) a safety belt can be used. If the fall is greater than two feet, a body harness is recommended to prevent further injuries caused by the sudden stop at the end of the fall.

A lifeline should never be used as a service line. The only time a lifeline becomes a load bearing line is in the event of a fall. At all other times it should be just slack enough to permit free movement on the service lines.

In the construction industry, full body harness systems used with a shock absorber are preferred over waist safety belts.

It is very important to get quality advice in the selection, purchase and maintenance of your fall arresting equipment.

See CSA Standard:

- "Fall Arresting Safety Belts and Lanyards for the Construction Mining Industries" Z259.1-1981.
- "Fall Arresting Devices, Personal Lowering Devices and Life Lines" Z259.2-M1979.
- "Lineman's Body Belt and Lineman's Safety Strap" Z259.3-M1978.

Do

- Obtain expert advice before purchasing a fall arresting device.
- Properly train and practice with system you decide to use.
- Use webbing type harnesses instead of leather harnesses.
- Use only the manufacturer's components for replacement parts.
- Inspect carefully before each use (inspection to be performed by a trained worker).
- Have the harness fitted snugly to the worker using the system.
- **Ensure that the anchor points are secure and able to support the load in the event of a fall.**
- Follow the manufacturer's instructions on care and use.
- Ensure all lines used with the systems have thimbles.
- Use only the proper safety rated fastenings with the system.

- **Use a full body harness with shock absorber whenever possible.**

Don't

- Modify, change or put additional holes in the harness or hardware.
- Jerry-rig the system.
- Use the system for any other than its intended use.
- Use the lifeline for a service line.

5.4 Limb and Body Protection

General Information

Due to nature and the construction workplace and the number of different hazards, it is not possible to cover specialized limb and body protection in detail. These types of hazards are known as "job exposures" (exposure to fire, temperature extremes, body impacts, corrosives, molten metals, cuts from sharp or abrasive materials). PPE in the category would be items such as:

- Leg, arm, chin and bell guards.
- Specialty hand pads and grips.
- Leather aprons and leggings.
- Full body suits.
- Flame and chemical resistant clothing.
- Various types of plastic boot covers, and overshoes.

For more information on the type of specialty PPE you require, check your local O.H.& S. office. With all PPE, following the manufacturer's instructions on its use, care and cleaning is critical and will help you get the full service life from your specialty PPE.

Hand PPE (Gloves and Mitts)

PPE for the hands include: finger guards, thimbles and cots, hand pads, mitts, gloves and barrier creams. Choose hand PPE that will protect against the job hazard. Gloves should fit well and be comfortable. This type of PPE has to protect against chemicals, scrapes, abrasions, heat and cold, punctures and electrical shocks.

Types

PPE for the hands come in many forms, each designed to protect against certain hazards. Gloves most commonly used in the construction industry are made from leather, cotton, rubber, synthetic rubbers and other man-made materials, or combinations of materials.

Vinyl coated or leather gloves are good for providing protection while handling wood or metal objects. When selecting hand PPE, keep the following in mind: look for anything at

the job-site that may be a hazard to the hands. If gloves are to be used select the proper type for the job to be done. Inspect and maintain hand PPE regularly. If in doubt about the selection or need for glove or hand PPE, consult your safety supplier, Material Safety Data Sheet (MSDS), or local O.H. & S. office.

Do

- Inspect hand PPE for defects before use.
- Wash all chemicals and fluids off gloves before removing them.
- Ensure that gloves fit properly.
- Use the proper hand PPE for the job.
- Follow manufacturer's instructions on the care and use of the hand PPE you are using.
- Ensure exposed skin is covered (no gap between the sleeve and the hand PPE).

Don't

- Wear gloves when working with moving machinery (gloves can get tangled or caught).
- Wear hand PPE with metal parts near electrical equipment.
- Use gloves or hand protection that is worn out or defective.

5.5 Eye and Face Protection

General Information

This PPE is designed to protect the worker from such hazards as:
- Flying objects and particles.
- Molten metals.
- Splashing liquids.
- Ultraviolet, infrared and visible radiation (welding).

This PPE has two types. The first type, "basic eye protection", includes:
- Eyecup goggles.
- Mono frame goggles and spectacles with or without side shields.

The second type, "face protection", includes:
- Metal mesh face shields for radiant heat or hot and humid conditions.
- Chemical and impact resistant (plastic) face shields.
- Welder's shields or helmets with specified cover.
- Filter plates and lens.

Hardened glass prescription lens and sport glasses are not an acceptable substitute for proper, required industrial safety eye protection.

Comfort and fit are very important in the selection of safety eyewear. Lens coatings, venting or fittings may be needed to prevent fogging or to fit with regular prescription eyeglasses.

Contact lens should NOT be worn at the work-site. Contact lens may trap or absorb particles or gases causing eye irritation or blindness. Hard contact lens may break into the eye when hit.

Basic eye protection should be worn with face shields. Face shields alone often are not enough to fully protect the eyes from work hazards. When eye and face protection are required, advice from the O.H.& S. office, Material Safety Data Sheet (MSDS) or your supplier will help in your selection.

For more information, look at:
- Alberta's O.H.& S. Statute and Regulations.
- CSA Standard "Industrial Eye and Face Protectors" Z94.3-M1982.

Do
- Ensure your eye protection fits properly (close to the face).

- Clean safety glasses daily, more often if needed.
- Store safety glasses in a safe, clean, dry place when not in use.
- Replace pitted, scratched, bent and poorly fitted PPE (damaged face/eye protection interferes with vision and will not provide the protection it was designed to deliver).

Don't

- Modify eye/face protection.
- Use eye/face protection which does not have a CSA certification (CSA stamp for safety glasses is usually on the frame inside the temple near the hinges of the glasses).

Eye Protection for Welders

Welders and welders' helpers should also wear the prescribed equipment. Anyone else working in the area should also wear eye protection where there is a chance they could be exposed to a flash.

5.6 Hearing Protection

General Information

Hearing protection is designed to reduce the level of sound energy reaching the inner ear.

- **The "rule of thumb" for hearing protection is: use hearing protection when you can't carry on a conversation at a normal volume of voice when you are 3 feet apart.**

Remember, this is only a rule of thumb. Any sound over 80 dB requires hearing protection. Hearing loss can be very gradual, usually happening over a number of years.

The most common types of hearing protection in the construction industry are earplugs and earmuffs. If you choose to use the other types of hearing protection, ask your safety supplier or O.H. & S. office for further information. It is important to have different styles of hearing protection available. Different styles allow a better chance of a good fit. Each person's head, ear shape and size is different. One style may not fit every person on your crew. If hearing PPE does not fit properly or is painful to use, the person will likely not use it. If the hearing protection is not properly fitted, it will not supply the level of protection it was designed to deliver.

Most earplugs, if properly fitted, general reduce noise to the point where it is comfortable (takes the sharp edge off the noise).

- **If your hearing protection does not take the sharp edge off the noise, or it workers have ringing, pain, headaches or discomfort in the ears, your operation requires the advice of an expert.**

Workers should have their hearing tested at least every year, twice a year if they work in a high noise area.

For further information, look at the CSA Standard "Hearing Protectors" Z94.2-M1984

INFORMATION SHEET FOR RESPIRATORY PROTECTIVE EQUIPMENT

5.7 General Information

Respiratory protection falls into two major categories. The first category is **Air Purifying Respirators (APRs)** which are particle (dust) chemical cartridges but **NO** visor plate. The second category is **Atmosphere Supply Respirators,** including self-contained breathing apparatus **(SCBA),** air line systems and protective suits that completely enclose the worker and incorporate a life support system.

Only APRs will be dealt with here. The second category of respirators requires much more specific information and training. If you need to use Atmosphere Supplying Respirators, you should get expert advice.

APRs

There are two basic types of APRs:

- Disposable fiber type with or without charcoal or chemical filter" buttons"
- The reusable rubber face mask type with disposable or rechargeable cartridges

The choice depends on your job, labor cost, and your maintenance facility.

It's important to remember that APRs are limited to areas where there is enough oxygen to support life. APRs do not supply or make oxygen.

The service life is affected by the type of APR, the wearer breathing demand, and the concentration of airborne contaminants. When an APR is required, consult the Material Safety Data Sheet (MSDS). O.H. & S. or supplier for the exact specifications for the APR.

Facial hair can prevent a good seal and fit of an APR: One to three days growth is the worst. Follow the manufacturer's instructions to the letter regarding the mask, filters, cartridges and other components. Workers who must use respiratory protection should be clean shaven.

An APR is only as good as its seal and its ability to filter out the contamination it was designed for.

Combination Respirators

This type of APR combines separate chemical and mechanical filters. This allows for the change of the different filters when one of them is plugged or exhausted before the other filter (usually the dust filter plugs before the chemical filter.) **This type of respirator is suitable for most spray painting and welding.** For more information check the:

- Material Safety Data Sheet (MSDS) & Safety Regulations
- The local O.H. & S. office
- The safety equipment supplier

For more information:

- U.A.E O.H. & S. Statue and regulations
- CSA Standards Compressed Breathing air Z1801.-M1978
- Selection Care and Use of Respirators Z94.4-M1982
- Chemical Hazards Regulation Alberta Reg.8/82

For further information see the appropriate current Occupational Health and Safety Regulations.

DO

- Train workers very carefully in the APR's use, care and limitations
- Ensure that the respirators are properly cleaned and disinfected after each shift according to the manufacturer's specifications
- Dispose of exhausted cartridges and masks in sealed bags or containers
- Keep new unused filters separate from old used filters
- Monitor APR use they are useless just hung around the neck
- Replace filters when breathing becomes difficult

DON'T

- Use for protection against materials which are toxic in small amounts
- Use with materials that are highly irritating to the eyes
- Use with gases that can't be detected by odor or throat, nose irritation
- Use with gases not effectively halted by chemical cartridges regardless of concentration (read the label)
- Use respirators or masks if the serviceability is in doubt

- Use APRs where oxygen content in the air less than 16% or 18 kilopascals (partial pressure or greater)

6 Maintenance Program Policy

All tools and equipment shall be properly maintained so as to reduce risk of injuries to employees or damage to property.

Supervision shall ensure that all preventive maintenance is carried out by qualified personnel according to established schedules and that records are maintained.

All employees shall regularly check all tools and equipment that they are working with, and shall take out of service any tools or equipment that poses a hazard due to a need for repair.

*** The safety information in this policy meets or exceeds O.H. & S. Regulations. All Employees should be familiar with the OH & S Act & Regulations.**

Signed: _____ Dated: _____
Khalid Yasin, Managing Director

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لتركيب وإصلاح نظم معدات السلامة وإطفاء الحريق
FIRE FIGHTING & SAFETY EQUIPMENT INSTALLATION

VEHICLE MAINTENANCE
SERVICE AND INSPECTION RECORD
(To be submitted monthly)

Vehicle _____ Driver _____

Unit Number _____ Location _____

Mileage _____ Date _____

Date of Service or Inspection

	_____
Motor Oil	_____
Chassis lube	_____
Oil Filter	_____
Air Cleaner	_____
Transmission	_____
Differential	_____
Wheel Bearings	_____
Steering System	_____
Battery	_____
Tires (tread depth)	_____
Tires (rotate)	_____
Tune-up	_____
Brake System	_____
Cooling System	_____
Lights	_____
Mud Flaps	_____
Windshield	_____
Signal Lights	_____
Headlights	_____
	_____

Garage Report _____
_____
_____
_____

Comments _____
_____
_____
_____

White - Site Yellow – Office

7 Safety Training Policy

Purpose

The purpose of this policy is to ensure that all employees receive adequate safety training.

Policy

ABR Al Bihar F.F & Safety Equip. Inst. Employee's will receive the following training:

- Standard First Aid level C CPR and AED
- ACSA "Leadership for Safety Excellence" Superintendent's and Foremen
- WHMIS
- Explosive actuated tools

ABR Al Bihar F.F & Safety Equip. Inst. will provide and ensure that all employees participate in the following safety training:

- Safety orientations for all new hires.
- Job-specific training as required.
- Weekly tool box safety meetings.
- MSDS binder location and information is current.

Signed: _____ Dated:_____
Khalid Yasin, Managing Director

SAFETY ORIENTATION DOCUMENTATION

ELAN

Elan Employee _____ Subcontractor_____ Other_____

Site Name & Address_____

Name of Worker_____ Date/Time_____
(Please Print)

Company Name _____

Elan Supervisor Name_____ Signature:_____
(Please Print)

Topics Covered

Company Safety Policy_____

Employees Responsibilities for Safety_____

Safe Work Practices
Ladders _____ Power Tools _____
Vehicles _____ Excavations _____
Scaffolding _____ Other _____

General Safety Rules (copy received) _____

Tool Box Meetings _____

Personnel Protection Equipment
Hard Hats _____ High Visibility Vests _____
Safety Boots _____ Safety Glasses _____
Other _____

Reporting Unsafe Acts / Conditions _____

Reporting Accidents _____

First Aid _____

Emergency Numbers _____

Site Specific Orientation Items _____

Safety Orientation Questionnaire

Note: Circle the correct response:

1. Hazard identification and control is important to maintain a safe working environment.
   No Yes
2. Working safely is a condition of employment.
   No Yes
3. All injuries, regardless how minor, must be reported immediately to your supervisor.
   No Yes
4. It is important to maintain good housekeeping in your work area
   No Yes
5. You observe an unsafe condition on site: should you:
   A) **Wait for the weekly tailgate meeting to report it.**
   B) **Report it immediately to your supervisor.**
   C) **Let someone else worry about it.**
6. It is permissible to carry material or equipment up or down any access ladder
   No Yes
7. Openings that are covered with plywood will have the plywood secured to prevent accidental dislodgement and will be marked with:
   A) **A Circle**
   B) **A Cross**
   C) **Letters warning of the opening**
   D) **All of the above**
8. A trench is 6 feet deep. It is permissible for you to enter the trench to work if it is not cut back or shored?
   No Yes
9. Personal protective equipment (hearing protection, fall protection, eye protection) should be worn whenever;
   A) **Someone else is wearing it.**
   B) **Your supervisor advises you to wear it.**
   C) **The potentional for personal injury exists.**
10. When you are working from heights, and guardrails are missing, you must use fall arresting equipment.
    No Yes
11. Tools and equipment whose guards are inoperative or missing are okay to use "just this once".
    No Yes
12. The Workplace Hazardous Material Information System (WHMIS)/ Hazardous Communication System (HAZCOM) designates certain products as controlled products and require them to be labeled. This label is a warning for you the worker. The label tells you the:
    A) **Name of the product**
    B) **Hazard symbol**
    C) **Risks when you use it**
    D) **Personnel protective equipment to wear**
    E) **First aid treatment if necessary**
    F) **All of above**
13. Material Safety Data Sheets (MSDS) are also required for WHMIS/ HAZCOM controlled products. These sheets are readily available for your additional information by asking your supervisor to see them.
    No Yes

I _____ hereby acknowledge that I have read and understand the Elan Construction Limited Safety Policies and Procedures outlined in the Elan Safety Handbook, confirmed by the completion of the above questionnaire. I further acknowledge that the site supervisor has reviewed all contents of the handbook with me and that the policies, work practices, and rules contained within the handbook must be adhered to at all times, on all Elan work sites. By signing this form below I acknowledge my full responsibilties and obligations related to this safety policy.

Signature of worker: _____

***Sample Safety Orientation Documentation**

Tool Box Meeting

Date: _____

Project: _____ Project Number: _____

Number in Crew: _____ Number Attending: _____

Trade: _____ Foreman: _____

Review Last Meeting: _____ List Name of Each Attendee:

Topic(s) Discussed:

Suggestions Offered:

Action(s) to be taken:

Injuries/Accidents Reviewed:

Foreman's Signature: _____

Supervisor's Remarks: _____

Signature: _____ Date: _____

White - Site Yellow - Safety Manager Pink - Project Manager

Safety Meeting Topics
(104 Idea Generators)

___ Aerosol Cans
___ Danger in A red Container
___ Compressed Gas Bottles
___ Fumes Can be Dangerous
___ Chemical Handling
___ WHMIS
___ Ventilation
___ Explosions-Avoid Them
___ Radiography (X-ray)
___ Fire Extinguishers
___ Welder Safety
___ Clothing
___ Fire Retardant Clothing
___ Save Your Fingers
___ Off the Job Safety
___ Gun Handling
___ Kitchen Fires
___ Loved Ones Want You Safe
___ Lawn Mower Safety
___ Swimming Safety
___ Boat Handling
___ Your Seatbelt
___ Driving Defensively
___ Water Safety Skills
___ Ladders in the Home
___ Xmas Tree Safety
___ Barricades
___ Crane Signals
___ Ladder Climbing
___ Electricity
___ Equipment Guards
___ Use of Hand tools
___ Horseplay
___ Noises
___ Power Tools
___ Tripping Hazards
___ Radiography
___ Unloading Trucks Safety
___ Scaffolds Are Not Playthings
___ Waste and Haste
___ Access and Egress

___ Lifting
___ Fixtures and Fingers
___ Damage Can be Controlled
___ Defective Equipment
___ Eyes Are Worth Protecting
___ Grinding Wheels
___ Fumes Can Be Dangerous
___ Housekeeping at Work
___ Climbing Safety
___ Slips and Falls
___ Instructing Equipment Operators
___ Machines Can Maim
___ Hazards Around You
___ Care in Backing Up
___ Protective Clothing Pays Off
___ Tools - Don’t Abuse Them
___ Vision and Eye Protection
___ Tips for Truck Drivers
___ Materials Handling
___ Leading in Safety
___ Demonstrate Safety
___ Explaining a Safety Rule
___ Goals Worth Working For
___ The Young Learn From You
___ Knowledge Never Hurts
___ Loss Control
___ First Aid Hints
___ Inspecting for Safety
___ Mistakes Can Mean Trouble
___ Investigating Thoroughly
___ No Second Chance
___ Attention Can Save a Life
___ Insurance Against Accidents
___ Analysis of an Accident
___ Habits
___ Job Safety Analysis
___ Benefits of Safety First
___ Cooperation
___ Betting Your Life
___ Judgment May Keep You Alive
___ Be a Safety Jury

___ Insurance and Injuries
___ Yellow Lines and Safety
___ Organizing a Safety Committee
___ Questions to Stimulate Safety
___ Teaching Safety
___ Treating an Open Wound
___ The Law of Safety
___ You Are the Key Worker
___ Breathing Equipment
___ Company Rules
___ Proper Job Instruction
___ Safe Worker Awards
___ Understanding
___ Signs for Safety
___ Tool Crib Accidents
___ Visual Safety Example
___ Watch the Main Issues
___ Safe Working Positions
___ Analyze the Unsafe Act
___ Rewards for Safety
___ On the Job Safety
___ Prevention

Where it is appropriate the following topics can be used as they become current or require review.

___ Review of Recent Accidents
___ Review of Safe Work Practices
___ Review Procedures of Tasks to be done

To All Subcontractors, Hired Truckers, and Equipment Suppliers:

It is the policy of ABR Al Bihar F.F & Safety Equip. Inst. to ensure a safe work environment for all personnel working on the site and visitors. It is mandatory that all personnel or visitors who enter the worksite will wear the following personal protective equipment:

- CSA Approved Hardhats
- CSA Approved Steel-toed Work boots where applicable.
- CSA Approved Safety Glasses where applicable.
- Retro Reflective Safety Vest where applicable.

It is the policy of ABR Al Bihar F.F & Safety Equip. Inst. that all subcontractors, hired truckers and equipment suppliers are to provide, prior to commencement of work:

- proof of established WCB account
- proof of insurance

All personnel must also obey site rules, signs and speed limits.

All visitors must report to the site office and receive authorization prior to entering worksite area.

There will be no exception to this rule. Violators will be dismissed immediately.

Thank you for your cooperation in making this a safe work place.

Yours truly,

Signed: _____ Date: _____
Khalid Yasin, Managing Director

8 Inspection Policy

It is the policy of ABR Al Bihar F.F & Safety Equip. Inst. to maintain a program of safety inspections. The objective of this program is to ensure the construction safety program is enforced and to control hazards in the workplace.

All ABR facilities and job-sites shall be included in the inspection program.

Informal inspections shall be conducted by supervisors on an ongoing basis in their areas of responsibility.

Formal inspections shall be conducted by the manager or designate at each facility or job-site on a regularly scheduled basis.

Signed: _____ Dated: _____

Khalid Yasin, Managing Director

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FIRE FIGHTING & SAFETY EQUIPMENT INSTALLATION
OVERSEAS

ABR Al Bihar Fire Fighting & Safety Equipment Installation

Work Site Safety Inspection

Date: _____

Location: _____ Inspected by: _____

Items to watch for:

- Buildings and structures, windows, floors, doors, stairs.
- Elevators, escalators, manlifts
- Aisles, work surfaces.
- Lighting
- Electrical wiring, cords.
- Fire protection equipment.
- Heating and cooling.
- Sanitation.
- Storage facilities, areas.
- Bulletin board.
- Job procedures.
- Flammable liquid, gas, labels, storage containers.
- Atmospheric condition, ventilation
- Toxic material storage, labels.
- Pressure vessel, inspection.
- Materials handling equipment.
- Containers.
- Production equipment, guarding
- Hand and power tools.
- Ladders, scaffolds.
- Vehicles.
- First aid, contents, training.
- Exits, alarms, emergency lighting drills.
- Personal protective equipment
- Operator authorization.
- Warning signs, labels.
- Safe work practices.
- Proper lifting.
- Housekeeping.
- Maintenance. controls.
- Safety training.
- Smoking.
- Locker and lunchroom.

Number	Priority	Description	Corrective Action Complete

Priority 1 - immediate action
Priority 2 - _____
Priority 3 - _____

White - Site Yellow - Safety Manager Pink - Project Manager

9 Investigation Policy

It is policy of ABR Al Bihar F.F & Safety Equip. Inst. to have all incidents that result in injury or property damage, or that could have resulted in serious injury or property damage, thoroughly investigated.

The purpose of such investigation shall be to determine the causes of the incident so that appropriate action can be taken to prevent recurrence.

Supervisors shall be responsible for conducting investigations and submitting reports to the project manager.

The project manager shall determine and implement appropriate measures to prevent recurrence.

Signed: _____ Dated:_____
Khalid Yasin, Managing Director

9.1 Investigations

The following procedure will be followed after getting proper medical care for the injured:

1. The ABR Al Bihar F.F & Safety Equip. Inst. Project Superintendent will make a judgment as to the severity of the accident.

2. If the accident is such that the worker has to go to the hospital, the Superintendent will call the Project Manager and alert the Site First Aid Attendant immediately.

3. If the accident requires the worker to go the doctor's office only, but there is a question in the Superintendent's mind, "Maybe I should call the First Aid Attendant anyway?", please call the First Aid Attendant immediately to clear up the question. No matter how minor the accident is, the Superintendent shall always notify the Project Manager and Safety Manager of the accident.

4. Workers on ABR Al Bihar F.F & Safety Equip. Inst. project shall be a concern of the ABR Al Bihar F.F & Safety Equip. Inst. Project Superintendent as follows:

A. On an ABR turnkey project, all employees of ABR Al Bihar F.F & Safety Equip. Inst. and Subcontractors on that project are the concern or the ABR Project Superintendent.

B. On an ABR building erected project, the erection and other subcontractor employees are the concern of the ABR Erection Superintendent.

C. In an ABR material only project, the Erection Consultant (on other type projects referred to as Superintendent,) shall act in an advisory capacity only with the workers, versus giving specific directions.

D. On an ABR project, any direct field labor is the concern of the ABR Project Superintendent or Erection Superintendent

6. Immediate action must be taken by the Superintendent in regard to his judgment to call the Response Team. Don't delay your judgment.

9.2 Incident Investigation Procedures

After contacting a member of the Response Team, begin the process of making an Incident Investigation Report (Section 9.4) taking the following steps:

1. View the scene of every accident. The area can change completely within hours. **Take photos**, where possible.

2. If a piece of equipment is involved, hold it secure, if possible.

3. Property damage should be held for inspection.

4. Secure the names of all parties involved, i.e., property owner, injured party, and witnesses.

5. Do not speculate or discuss the accident with people outside the ABR Al Bihar F.F & Safety Equip. Inst. organization.

6. Delay can be very costly – Start the investigation immediately.

7. Send the original copy of the Incident Investigation Report Form **by fax** to the Safety Manager and keep a copy for your file. Complete the Form as fully as possible immediately after the accident. Send additional information which may surface (including WCB Worker's Report of Accident, doctor's report, developed photos, etc.), separately as soon as available.

8. Contact OH&S if there is a serious injury.

9.3 Critical Injury / Serious Accident Definition

What is a Critical Injury?
An injury of a serious nature that:

a) Places life in jeopardy
b) Produces unconsciousness
c) Results in substantial loss of blood
d) Involves the fracture of a leg, arm, hand or foot but not a finger or toe
e) Involves the amputation of a leg, arm, hand or foot but not a finger or toe
f) Consists of burns to a major portion of the body
g) Causes the loss of sight in an eye
h) An injury or accident that results in a worker’s being admitted to a hospital for more than 2 days.

i) An unplanned or uncontrolled explosion, fire or flood that causes serious injury or that has the potential of a serious injury
j) The collapse or upset of a crane, derrick or hoist, or
k) The collapse or failure of any component of a building or structure necessary for the structural integrity of the building or structure

Written report to be sent to Safety Manager within 24 hours to include:

1. Nature and circumstances of the occurrence and the bodily injury sustained
2. A description of the equipment/machinery
3. The time and place of the occurrence.
4. Name and address of the injured worker.
5. Names and addresses of witnesses.
6. Name and address of treating physician.

If the accident causes a non-critical injury (where a person is disabled from performing their usual work of requires medical attention), provide Written Notification to Safety Manager with 24 hours.

What to do when a serious accident occurs in the workplace:

1. Arrange assistance - Medical & Emergency
2. Lock out the equipment/machinery.
3. Secure the accident site.
4. Notify:
   - Safety Manager
   - Project Manager
   - A Occupational Health & Safety Inspector
   - The Injured Worker's Family
5. Designate a Management Official as OH&S contact and liaison person
6. Coordinate activities of Inspector
7. Record Inspector's observations, comments, test, results measurements and photographs.
8. Copy and retain all witness statements and documents given to Inspector
9. Prepare and send a written report to Safety Manager within 24 hours after the occurrence.

ABR AL Bihar Fire Fighting & Safety Equipment Installation

9.4 Incident Investigation Report

Date: _____

File Number:_____

1. Incident Type: ___ Injury/Illness ___ Property Damage ___ Major Potential ___ Fire ___ Spill ___ Other

2. Incident Date (Y/M/D) ____/____/____ 3. Time: _____

4. Area: _____ 5. Specific Location: _____

Injury/Illness

6. ___ First Aid ___ Medical Aid ___ Modified Work ___ Lost Time ___ Fatal

7. Name of Employee: _____ 8. Age ___ Sex ___

9. Occupation: _____ 9.5 Experience: _____

10. Nature of Injury: _____

_____

11. Object/Equipment/Substance Inflicting Injury/Damage: _____

12. Person with most control over item(s) in 11 above:

Name: _____ Dept.: _____

Property Damage

13. Description of Property: _____

14. Description of Damage: _____

_____

Other Actual/Potential Loss

15. Type: _____

16. Description: _____

17. Evaluation of Risk Potential if Not Corrected

A. Loss Severity Potential ___ Major ___ Serious ___ Minor
B. Probable Recurrence Rate ___ Frequent ___ Occasional ___ Rare

18. Description of Incident: _____

_____

_____

_____

Incident Investigation Report - Page 2

Diagram of Scene

19. Witness (es): _____

_____

Witness (es): Statement(s) Attached: ___ Yes ___ No

20. Immediate Cause(s): _____

Description: _____

_____

_____

_____

21. Underlying Cause(s): _____

Description: _____

_____

_____

_____

22. Corrective Action(s) (Immediate, Interim, Final): _____

_____

_____

_____

23. Date report completed: (Y/M/D) ____/____/____

Signatures

Supervisor: _____

Employee: _____

24. Were the corrective actions implemented within 24 hrs _____ Yes ____ No If no explain_____

_____

25. Safety Manager is responsible for the follow up. Follow up Date: (Y/M/D) ____/____/____

Safety Manager: _____

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Vehicle Accident Investigation Report

Date: _____

Part I-General Information

1. Company or Branch _____
2. Driver Name _____
3. Department _____
4. Age ____

5. Date of Accident _____
6. Time ☐ a.m. ☐ p.m.
7. How long has driver been operating our vehicle? Year _____Months _____

8. Exact location of accident
_____

9. List dates of all vehicle accidents reported by driver in the past 3 year.
_____

Part II - Description of Accident
(Describe what happened - who was involved -where-when-why-how)

10. _____
_____

Part III - The Cause of the Accident (Also complete reverse side.)

11. What did our driver or any other employee do, or fail to do, that contributed to the accident?
_____
_____

12. Did driver's physical condition (hearing, eye defects, sickness, lack of sleep, etc.) cause, or contribute in any way, to the accident?
☐ Yes ☐ No Explain:
_____
_____

13. Did a vehicle's condition, scheduling, routing, maintenance, etc., contribute in any way to the accident occurrence or to the resulting damage or injury? Explain.
_____
_____
_____
_____

Part IV - Corrective Action Taken

14. What is being done to prevent a recurrence? Be specific. List definite steps taken. Avoid vague or meaningless answers such as, "Told driver to be more careful," etc.).

_____

_____

_____

Part V - Management Review

15. _____

16. Preventable by Driver: Yes ☐ No ☐

Signature of Employee_____ Date _____

Signature of Supervisor _____ Date _____

10 Emergency Response Plan

1. This is a standardized emergency response plan and must be reviewed and modified as required to suit each individual project. This review must include coordination with the owner's emergency response plan if present.
2. The emergency response plan must be reviewed with all ABR workers including new hire employees to ensure they are familiar with the plan and their individual responsibilities. The plan must also be reviewed with all sub-contractor workers including transfers from other ABR sites.
3. The plan must be posted in an area that is easily and fully accessible to all workers on site.
4. The plan must include an emergency contact list, within the City of U.A.E and surrounding areas. Rural or isolated areas have specific phone numbers for specific emergency response services, and these numbers will be included on the emergency contact list, as required. In addition to this emergency contact list, the address and appropriate directions must be included and posted for easy access by all personnel on site.
5. Qualified First Aiders must be identified including both ABR employees and sub-contractors. This identification may include posting First Aid Certificates in the jobsite office or hard hat identification stickers.
6. Prior to work starting each day the individual supervisors or foreman, including sub-contractors, must submit a manpower head count so that the total work force size is known and can be accounted for in the event of an emergency.
7. As part of the emergency response plan the individual sites must be evaluated and proper and safe muster points established for gathering areas in the event of an emergency.
8. Signaling devices to notify all personnel on site must be in place and the proper use and signal identification relayed to all personnel during the initial site orientation. This signaling device is a standard air horn and the signal identification, requiring immediate evacuation of the site to the appropriate muster points will be 10 second blast of the air horn.
9. Depending on the nature of the emergency the appropriate emergency services must be contacted immediately, generally by telephone, and if necessary the evacuation signal sounded to notify all personnel on site to evacuate to the appropriate muster areas. In the event of a site evacuation, a head count must be taken to ensure all site personnel are accounted for. Should outside emergency services be required, it may be necessary to post an individual to assist the emergency service team in their prompt access to the site and incident area.
10. Following the elimination of the emergency situation, the appropriate site investigation and report procedure must be completed and if necessary final analysis and review with all site personnel to eliminate recurrence.

10 Emergency Phone Numbers

Date: _____

Ambulance: _____

Police: _____

Fire Department: _____

Municipal Water Department: _____

Municipal Electrical Department: _____

Occupational Health and Safety Inspector: _____

Emergency Response Team

First Aiders:_____
_____

Other

Principal Contractor: _____

Office Phone Number: _____Home Phone Number: _____

Mechanical Contractor: _____

Foreman: _____

Office Phone Number: _____Home Phone Number: _____

Electrical Contractor: _____

Foreman: _____

Office Phone Number: _____Home Phone Number: _____

White - Site Yellow - Safety Manager Pink - Project Manager

11 Monthly Summary Reports

ABR Al Bihar Fire Fighting & Safety Equipment Installation

Treatment Record

Date	Time of Accident	Time/Date Reported	Name	Occupation	Description of Accident	Nature of Injury	F.A.A Treatment	Case/ Initials	Remarks

Monthly Safety Summary

Date: _____

1.	Number Workers Hired:	_____
	Number Completed Orientation:	_____
2.	Number Tool Box Meetings Scheduled:	_____
	Number Conducted:	_____
	Percentage Attendance:	_____
3.	Number Formal Inspections Scheduled:	_____
	Number Completed:	_____
	Total Unsafe Acts/Conditions Identified:	_____
	Number Corrected:	_____
	Number Outstanding:	_____
4.	Number of Incidents:	_____
	Damage Only:	_____
	Injury Only:	_____
	Injury and Damage:	_____
	Near Miss:	_____
	Number of Investigations Completed:	_____
	Outstanding:	_____
	Number of Recommendations Made:	_____
	Complete:	_____
	Outstanding:	_____

Superintendent's Signature:_____

Project Manager's Signature:_____

ABR AL BIHAR عبر البحار
لتركيب وإصلاح نظم معدات السلامة وإطفاء الحريق
FIRE FIGHTING & SAFETY EQUIPMENT INSTALLATION

ABR Al Bihar Fire Fighting & Safety Equipment Installation

Monthly Injury Summary

Month of: _____

Frequency	Man Hrs. Worked		Injuries							
			Lost Time		Medical Aid		First Aid		Frequency	
Project/ Jobsite	Month	Yr. to Date	Month	Yr. to Date	Month	Yr. to Date	Month	Yr. to Date	Month	Yr. to Date
TOTALS										
								Frequency Average		