



Corporate Safety Manual

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Purpose

The purpose of the Safety, Health and Environmental Program (SHE) is to establish SHE performance standards for BC&E Corp employees and subcontractor. BC&E has developed and will maintain a comprehensive plan, which prevents injuries, as well as environmental impacts. The accomplishment of this mission requires the active involvement of BC&E's management and construction personnel, the Owner, and all subcontractors.

OSHA's standards for construction (CFR part 1926) have been use the starting point for the development of these standards although the minimum standards of OSHA have been exceeded in several areas. Each Contractor shall become familiar with the site requirements and pass the information to all of respective employees who will be assigned to the project

GOALS and RESPONSIBILITIES

BC&E's goals are to complete construction of this project without the following:

Environmental incidents, including but not limited to, accidental spills of hazardous waste or materials, and accidental release of any hazardous or toxic chemicals in to the air, water, or storm water at this site.

Exposure of any employee to a health hazard or condition that could lead to an occupational illness.

An injury to any personnel employed at the site. This goes beyond the traditional OSHA recordable and lost time accidents, which also include first aid cases.

In order to achieve the SHE goals, each individual on the project must have the same commitment to an injury free project, as does BC&E. The Project Management team will set the tone for safety early in each of the projects. Managers and office staff must make "Injury Free" a value that is communicated to each subcontractor and employee associated with the project.

The following responsibilities are for all to abide:

BC&E's subcontractors must accept "Injury Free" as a value to which BC&E is committed and communicate such to their employees.

Superintendents and field supervisors must make "Injury Free" a value that they consider as they plan and execute each step of the construction process.

Craft employees must embrace the "Injury Free" concept as a value and include it in the everyday work process.

ELEMENT 1. LEADERSHIP COMMITMENT

BC&E SAFETY AND HEALTH/LOSS CONTROL CORPORATE POLICY

The President of BC&E has among his priority responsibilities the protection of the physical integrity and health of the workers, the conservation of all the resources of the company, and the achievement of the highest levels of efficiency and quality of BC&E's operations.

The following policy is hereby established to ensure that the upper Management levels of the Organization will exercise effective leadership to educate and motivate all levels of the organization to comply with their responsibilities, and to maintain a structure that guarantees the adherence to this Corporate Statement.

1. Safety is the first consideration in the management of any activities within BC&E. Project managers, superintendents, supervisors or employees have no authority to proceed with an unsafe operation. The Safety and well being of the individuals will not be compromised for convenience of production.
2. A safe operation and the use of personal protective equipment, whenever it is required, is a condition for employment with BC&E.
3. A safe work environment is obtained through the maintenance of safe and orderly work conditions, as well as, adherence to safe practices in operating tools and equipment.
4. Project managers, superintendents, supervisors, employees, at all levels, whether BC&E or subcontractors, are responsible for implementing the Safety and Health rules in their work areas.
5. All Safety rules shall be conformed and followed. Violations to the Safety rules will expose the employees to sanctions delineated in BC&E Policies and Labor Regulations.
6. Each employee has the responsibility for his/her own personal Safety and to ensure that his/her actions will not endanger the safety of others.

The President of BC&E directs the Management Team to fully implement this policy and to exercise effective leadership by example. All must display a positive attitude towards our SHE Program.

We also require that each employee and subcontractors actively and enthusiastically participate and cooperate with this task.

BC&E Corp.

Sincerely,

Christopher Bacallao
President

ELEMENT 2. PLANNED INSPECTIONS

The purpose of this element is to progressively and systematically identify, analyze and correct any substandard conditions or deficiencies that may affect the appropriate interaction amongst people, equipment, materials, and/or environment during the normal construction process.

Safety inspections are a means of identifying unsafe conditions and work practices. BC&E and subcontractors will perform weekly SHE inspections of their work locations. All non-compliance items would require a documented response as to how the action has been implemented to eliminate and/or prevent the non-compliance.

In addition, the Owner's Construction Manager's (CM) SHE staff may inspect various parts of the work. Each subcontractor will be immediately notified and required to correct all non-compliant issues as stated in the SHE Policy and Procedures Manual. Corrections must be documented and forwarded to the Owner's Rep. within 24 hours of notification. The Safety Representative may instruct the Site Manager to conduct inspections more frequently based on the size and stage of the project.

Inspection is the process of reviewing a project site, work area or process with the major concentration placed on the conditions of the site or area, comparing the site area or process to OSHA standards and the project's Policy and Procedures Manual. During an inspection, major focus will be on conditions; however, actions observed during the inspection will be addressed as well.

The Site Manager shall utilize the Construction Safety Survey checklist during the inspection. The checklist provides an outline of items that need to be addressed during the inspection. In addition to the list, the Site Manager must pay close attention to all federal safety and health regulations for construction and the general industry standards.

After completing the checklist, the Site Manager will do the following:

1. Discuss all difficulties with affected personnel and insure the situation is corrected.
2. Where hazards are caused by other contractors on the job, discusses the situation with the contractor, and if necessary contacts the Safety Representative.
3. Follow up on changes, corrections, and other required actions.
4. Make written comments on the back pages of the check list indicating what corrective action has been or needs to be taken for items that were noted as deficient.
5. Turn in checklist to company Safety Representative with weekly paper work.

If a situation occurs or is identified which may present a risk of an incident, accident, injury, illness or a violation of the SHE Policy, the CM will stop work immediately and will not allow work to resume until the situation has been corrected. No additional compensation or time extension will be granted as a result of such stoppage.



INSPECTION REPORT CHECKLIST

SAFETY INSPECTION CHECKLIST

Location: _____ Date: _____

Person Completing Inspection/Title: _____

INSPECTION ITEM	YES	NO	COMMENTS & CORRECTION DATE
Are appropriate warning signs posted on or near all equipment?			
Are hand tools inspected for safe condition and removed from use if damaged?			
Are ladders in good working condition with safety feet and removed if damaged?			
If you have fixed ladders, are they adequate, and are they in good condition and equipped with side rails, cages, or special safety climbing devices if required?			
Are all machines and equipment with rotating parts, pinch points, flying chips, belts, particles or sparks adequately guarded?			
Are only trained and authorized personnel allowed to operate equipment such as forklifts, power brakes, power shears, and other equipment?			
Are floors clean and scrap materials removed? Is housekeeping done on a regular basis?			
Are material storage areas clean?			
Are exits and entrances kept clear and properly marked?			
Are fire extinguishers readily available, inspected monthly, and proper marked?			
Are arc welding and cutting cables completely insulated and in safe condition?			
Are welding areas properly shielded and vented?			

Is proper eye protection used when performing hot work?			
Is welding equipment properly stored, maintained, and secured?			
Are stairs and aisle ways clean and proper lighted?			
Are sanitary facilities adequate and clean?			
Are slings, hoists and chains in good condition and load rated?			
Are flammable materials stored proper?			
Are oxygen cylinders stored with fuel gas? If so, separate.			
Are all compressed gas cylinders chained to a support structure with the cap in place?			
Are all containers, tanks, drums, and secondary containers labeled with substance identity, hazard warning, and manufacturer information.			
Are all breaker panels clear of obstacles to maintain easy access and panel switches, outlets or covers replaced?			
Are eyewash units or solution accessible near eye hazard areas?			
Is there a first aid kit?			
Does storage above offices and mezzanines have posted weight limits to ensure safe limit is not exceeded?			
Are extension cords used as a substitute for fixed wiring?			
Are loading areas proper marked and guarded?			
Is personal protective equipment used when appropriate?			

Additional safety checks pertinent to your job site:

INSPECTION ITEM	YES	NO	COMMENTS & CORRECTION DATE

NOTE: Those items that were not corrected immediately shall be corrected as soon possible. All imminent danger conditions shall be corrected immediately. Those parties listed under each item as being responsible to ensure that the safety hazard is promptly corrected must convey to the Safety Coordinator that the item has been corrected.

ELEMENT 3. TASK HAZARD ANALYSIS, PROCEDURES AND AUDITS

SAFETY AUDIT

Purpose

To provide a guide for a thorough safety audit to ensure that safety standards are being met and to identify areas for improvement or change.

Scope

This procedure shall be applied to all the company divisions, on-site construction and maintenance projects as deemed necessary to ensure safe work conditions and practice and maintain regulatory compliance.

Responsibility

- ▶ Each division is responsible for conducting a minimum of one facility audit per year and project safety audits will be scheduled on a case by case basis.

Procedure

Pre-audit

- ▶ Each division will develop a schedule of audit dates for the calendar year. Audits will be conducted in compliance with the audit protocol. The division is responsible for providing a written response to the results of the audit.

Audit

- ▶ The Audit designee will complete a safety program review and conduct the safety audit.
- ▶ Each will interview craft personnel during the course of the safety audit.
- ▶ Each will finalize all comments along with all recommendations while he/she completes the audit.
- ▶ The completed safety audit form will be copied and sent to the corporate safety Representative.

Post Audit

- ▶ The Audit designee will prioritize the recommendations made in the safety audit. This will serve as the basis for corrective action to be taken within thirty days of the audit.
- ▶ The Audit designee will address each of the specific recommendations made in the safety audit, indicating action taken, or to be taken, and time frame for completion of action and distribute this information accordingly.

SAFETY AUDIT

General Information

Project/Location: _____

Address: _____

Date: Start _____ Finish _____

Audit performed by: _____ Title: _____

Staff

Division Manager: _____

Superintendent: _____

Safety Coordinator: _____

Supervisor(s): _____

Number in Work Force: _____

Safety Committee

Chairman: _____ Title: _____

Committee Members: _____

Safety Meetings

Describe the content of the meetings:

Are safety meetings conducted at least once a week? ☐ Yes ☐ No If no, how often?

Are minutes posted after each meeting? ☐ Yes ☐ No

Are minutes kept on file? ☐ Yes ☐ No

Are toolbox safety talks given? ☐ Yes ☐ No

How often are toolbox safety talks given? Daily _____ Weekly _____ Monthly _____

Medical Services, First Aid

1. Is facility for the treatment of an injured employee reasonably accessible? Yes No
2. Is the project provided with an industrial nurse? Yes No
3. Are first aid supplies adequate and readily accessible? Yes No
4. Is at least one employee trained in first aid? Yes No
5. Do paint areas and forklift battery charging stations have eye washing stations or solutions available? Yes No
6. Is a first aid kits located in each gang box? Yes No
7. Is there an emergency shower? Yes No

House Keeping & Sanitation

1. Are potable drinking water and adequate toilet facilities available at the construction site?
Yes No
2. Is there a location that is fit for meals? Yes No
3. Are trashcans available? Yes No
4. Is there regular disposal of trash and waste? Yes No
5. Is there adequate lighting in all areas? Yes No
6. Is combustible scrap, waste, and debris stored safely and removed from site? Yes No
7. Are spills cleaned up immediately? Yes No

Personal Protective Equipment

1. Are hard hats worn at all times on the construction sites? Yes No
 2. Are employees provided with eye and face protection as needed? Yes No
 3. Is this equipment used? Yes No
 4. Are employees working more than six feet above any adjacent working surface provided with safety harness/equivalent? Yes No
- Is this equipment being used? Yes No
- Did you have to warn anyone not using equipment or not tied off? Yes No

5. Are safety nets provided when work places are more than 25 feet above ground or water surface where use of ladders, scaffolds, etc. is impractical? Yes No
6. Do employees wear all necessary personal protective equipment? Yes No

Tools-Hand & Power

1. Are hand and power tools maintained in Safe condition? Yes No
2. Are power tools, belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, and chains property guarded? Yes No
3. Are electric power operated tools equipped with proper ground or double insulated? Yes No

Fire Protection and Prevention

1. Has a fire protection program been developed? Yes No
2. Is fire-fighting equipment conspicuously located and marked with proper signage? Yes No
3. Is a water supply available and of sufficient volume and pressure to operate firefighting equipment? Yes No
4. Do all fire extinguishers meet requirements established? Yes No
5. Are requirements for storage of flammable and combustible liquids being complied with? Yes No
6. Is adequate fire protection available during hot work? Yes No
7. Is adequate fire protection available in paint areas? Yes No
8. Are no smoking signs posted and enforced where needed? Yes No
9. Are employees instructed on the use of fire protection equipment? Yes No

Materials Storage, Handling, and Disposal

1. Are materials which are stored in tiers either stacked, racked, blocked, interlocked, or otherwise secured so as to prevent sliding, falling, or collapse? Yes No
2. Are maximum safe load limits of elevated floors posted? Yes No
3. Are aisles and passageways clear and in good repair? Yes No
4. Are waste materials disposed of properly? Yes No
5. Comment on general housekeeping for the entire project.

Other Comments/Observations:

Welding & Cutting

1. When transporting or storing compressed gas cylinders, are cylinders secured and valve protection caps in place? Yes No

2. Are cylinders secured in a vertical position when transported by powered vehicles? Yes No
3. Are flame arresters in use on all welding hook ups? Yes No
4. Are employees instructed in the safe use of fuel gas? Yes No
5. Are torches inspected at the beginning of each work shift for leaking shutoff valves, hose couplings, and tip connections? Yes No
6. Are oxygen and fuel gas pressure regulators in proper working order? Yes No
7. Are oxygen cylinders and fittings kept away from oil or grease? Yes No
8. Are frames of all arc welding and cutting machines grounded either through a third wire in the cable containing the circuit conductor or through a separate wire which is grounded at the source of the current? Yes No
9. Are employees instructed in safe means of arc welding and cutting? Yes No
10. Are welding and cutting operations shielded by noncombustible or flameproof screens whenever practicable? Yes No

Other Comments/Observations:

Electrical

1. Do employees work near electric power circuits protected against electric shock? Yes No
2. Is sufficient space provided to permit safe operation and maintenance of electrical equipment? Yes No
3. Do all 120 volts, single-phase, 15- and 20-ampere receptacle outlets on site, which are not a part of the permanent wiring of the building or structure and which are in use by employees, have approved ground fault circuit interrupters, or has an assured equipment grounding conductor program been established? Yes No
4. Are the grounding circuits of equipment checked periodically for effective grounding? Yes, No When?
By Whom?
5. Are branch circuits and feeders protected by over current devices (fuses, circuit breakers) in accordance with their current carrying capacity? Yes No
6. Are switches, circuit breakers, and disconnecting means identified as to their functions? Yes No
7. Are receptacles & plugs non-interchangeable when used where different voltages and types of

current (AC/DC) are used? Yes No

8. Are extension cords used with portable electric tools and appliances of three-wire type? Yes No
9. Have equipment or circuits that are energized been rendered inoperative, and have tags been attached to all points where such equipment or circuits can be energized? Yes No
10. Are temporary lights equipped with guards to prevent accidental contact with the bulbs?
Yes No
11. Is it ensured that portable electric lighting used in moist and/or other hazardous locations do not exceed 12 volts? Yes No
12. Are flexible cords used only in continuous lengths without splices? Yes No
13. Are extension cords fastened with staples, hung from nails, or suspended by wire? Yes No
14. Are boxes for disconnecting means securely and rigidly fastened to the surface on which they are mounted and fitted with covers? Yes No
15. Are boxes and disconnecting means that are installed in damp or wet locations waterproof?
Yes No
16. Are non-current carrying metal parts or portable and/or plug connected equipment grounded or double insulated? Yes No

Other Comments/Observations:

Floor - Wall Openings - Stairways

1. Are floor and wall openings properly guarded with standard railing and too boards? Yes No
2. Are skylight openings guarded by fixed standard railings on exposed sides, or are covers capable of holding a 200-pound force? Yes No
3. Are wall openings four (4) feet above ground properly guarded? Yes No
4. Are extension platforms outside a wall opening properly guarded with side rails or equivalent guards? Yes No
5. Are open sided floors or platforms four (4) four feet or more above ground or floor level guarded by standard railing? Yes No
6. Are runways higher than 4 feet and on which tools machine parts, or material are likely to be used,

guarded by standard railing and too board? Yes No

7. Are flights of stairs with four or more risers equipped with standard stair railings or standard handrails as required? Yes No

Motor Vehicles - Mechanized Equipment

1. Are all vehicles that are left unattended at night equipped with lights or reflectors, or barricades with lights or reflectors? Yes No
2. Are tire racks, cages (or equipment protective devices) provided and used when inflating, mounting, or dismounting tires installed on split rims or rims equipped with locking rings? Yes No
3. Are vehicles in use inspected at beginning of each shift to assure that all parts, equipment, and accessories, affecting safe operation are free of defects? Yes No
4. Are bulldozers and scraper blades, dump bodies, etc., fully lowered or blocked when being repaired or not in use? Yes No
5. Are parking brakes set on parked equipment, and are wheels chocked when parked on an incline? Yes No
6. Are operating levers equipped with latch? Are tailgate handles on dump trucks arranged to keep operator clear? Yes No

Other Comments/Observations:

ELEMENT 4. ACCIDENT INCIDENT INVESTIGATION

The accident investigation purpose is to establish a reliable system that will immediately identify the basic causes of accidents, to timely correct them, as well as, other errors or omissions and weaknesses of a permissible management system.

Project Requirements For Accident Investigation and Reporting

BC&E Field Staff and all subcontractors shall notify the BC&E's Corporate Safety Representative and BC&E's Corporate Office, within one hour of the incident taking place. Each unusual occurrence (resulting in personal injury, property damage, motor vehicle accidents, or near miss) will be thoroughly investigated by the Site Manager through interviews, on the scene investigation and establishing contributing factors. The information derived from these investigations and continual analysis will be used as a basis for changes, modification and/or addition to the Safety Program. Incidents include those that result in, or could have resulted in, an illness, injury, fire, property damage, or hazardous material spill while working on the project site.

In the case of an injury or occupational illness, the first written report of injury shall be forwarded to BC&E's Corporate Office within eight (8) hours, or on close of the business day (if close of the business day is less than eight hours) of the incident.

The Site Manager who performs the investigation needs to follow the written procedure for accident investigation. A written report must be prepared on the BC&E Corp., Supervisor's Accident Report Form for all serious accidents. The report should contain details of what happened, when it happened and who was involved. It should develop conclusions regarding the physical cause of the accident, but should not deal with the placement of legal liability upon any party. The supervisor at the location where the accident occurred will perform an accident investigation. The safety coordinator is responsible for seeing that the accident investigation reports are being filled out completely, and that the recommendations are being addressed. Supervisors will investigate all accidents, injuries, and occupational diseases using the following investigation procedures:

The following is an outline of the checklist:

1. See that the injured are cared for.
2. Implement temporary control measures to prevent any further injuries to employees.
3. Have someone call the Project Manager or Safety Representative.
4. Preserve the scene as it was after the accident.
5. Make a visual walkthrough of the accident site. Review the equipment, operations, and processes to gain an understanding of the accident situation
6. Identify and interview each witness and any other person who might provide clues to the accident's causes.
7. Examine the evidence.
8. Photograph all evidence.
9. Make a diagram of the accident site.
10. Investigate causal conditions and unsafe acts; make conclusions based on existing facts.
11. Provide recommendations for corrective actions.
12. Indicate the need for additional or remedial safety training.
13. Complete the accident investigation report.

14. Submit the accident report to Safety Representative.

Each incident, occupational illness or occupational injury shall be documented and thoroughly investigated by BC&E Corp., and any subcontractor(s) involved. The investigation shall be documented, with copies forwarded to the Corporate Office within 24 hours of the incident. The investigation's goal is to identify all the basic causes, both acts and conditions leading to the incident, and to modify the work area or procedures to prevent a repeat of the same incident. Each incident investigation shall be accompanied by a work plan, incorporating changes in work areas, training, or procedures necessary to prevent a repeat incident and a schedule of when the changes will be implemented.

At the discretion of the BC&E's Project Manager a joint investigation by the PM, BC&E Corp, and all involved lower tier Subcontractors may be required. Therefore, when an incident occurs, the incident scene must be preserved and all parties involved, except for those who require medical treatment will be retained to ensure a complete and thorough investigation. The decision as to whether a joint investigation is to be conducted will be made within one hour of initial notification.

Reporting

Subcontractors will report all first aid cases, OSHA recordable cases, restricted duty cases, and lost workday cases.

RECORD KEEPING AND DOCUMENTATION

BC&E and all subcontractors will maintain all of the record keeping, documentation and reporting required by the various government agencies as they apply to the scope of work. All records, documents, and reports required, as a result of work on their respective project shall be available to the CM for review. The following is a partial list of records, documents and reports that BC&E will produce and maintain as it applies to their scope of work:

- Accident Investigation Reports
- Workers' Compensation Notice of Injury Reports DWC 1
- OSHA 300 Log
- OSHA Training Records
- OSHA citations and responses
- MSDS Sheets
- SARA Filings
- Manifest For Transportation Of Hazardous
- T.A.P.P. - Reference Chapter 11

The Safety Coordinator will control and maintain all employee accident and injury records, which will be kept for a minimum of three (3) years.



Corporate Safety Program

ELEMENT 4

Accident/ Incident Investigation

Safety, Health and Environmental Manual

«Job_Number»

1.	2.	3.
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Ensure that all blanks are completed in detail; attach witness statements and all other information concerning the claim.

Print Supervisor's Name	Supervisor's Signature	Date
Print Employee's Name	Employee's Signature	Date

Employee Accident Report EMPLOYEE STATEMENT

Please complete this form in your own handwriting and return to your employer immediately

Location: _____ Address: _____

Injured Employee Name: _____ Date of Injury: _____
Time of Injury: _____ AM/PM

ACCIDENT INFORMATION:

What were you doing at the time of the incident?

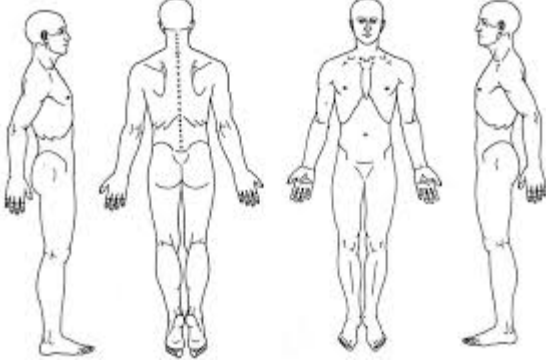
Who was around you at the time?

Describe exactly how the incident happened:

Was a resident involved?

Describe where the incident happened:

Describe and the part of the body affected and the nature of the injury (circle affected body parts on the below illustration):


Describe what you could have done differently to avoid the incident:

By my signature, I certify that the above information is correct and that I have completed this form truthfully without any coercion from my employer.

Dated _____

Signature: _____

EMPLOYEE MEDICAL RECORDS RELEASE FORM

I, _____ SSN: _____

Hereby authorize any health care provider, hospital, clinic, dispensaries, druggist, employers, and/or any other Payer or health care facility where I have been evaluated, treated, and/or in whose possession my health care records are located to engage in verbal and written contact with and to furnish (Facility Name) _____ and (Companies Name) _____ and their authorized representatives any and all information which may be requested regarding my medical condition, treatment rendered and/or other diagnostic records and tests- including Independent Medical Exams (IMEs). Included, but not limited to current exemptions for information relating to Florida Workers' Compensation under the Health Insurance Portability and Accountability Act (HIPAA), this consent specifically covers any and all records and documents protected by any current statute or regulation.

A photocopy or facsimile of this authorization shall have the same force and effect as the original.

Employee Signature: _____

Date: _____



Witness: _____

Date: _____

WITNESS STATEMENT

Please complete this form in your own handwriting and return to your employer immediately

Location: _____ Address: _____

Injured Employee Name: _____ Date of Injury: _____

WITNESS INFORMATION:

Witness Name:

Address, City, State, Zip:

Telephone No.:

ACCIDENT INFORMATION:

What were you doing when you witnessed the accident?

Describe how the accident happened:

Describe where the accident happened:

Describe the part of the body injured:

By my signature, I certify that the above information is correct and that I have completed this form truthfully without any coercion from my employer.



Dated _____

Signature: _____

EMPLOYEES RESPONSIBILITY UNDER WORKERS' COMPENSATION

Please read the following responsibilities carefully. Failure to comply these responsibilities may result in disciplinary action and may affect workers' compensation benefits.

If you have any questions or concerns about your responsibilities following an on-the-job injury, please contact the facility's Workers Compensation coordinator or Administrator.

1. **(Companies Name)** goal is to have you return to gainful employment as quickly as possible.

2. Unless otherwise directed, you are required to receive medical treatment from one of the facility's designated physicians listed on the posted panel of Occupational Healthcare Providers.

3. **IMMEDIATELY AFTER** receiving medical treatment:

a. **CALL YOUR DEPARTMENT SUPERVISOR/RETURN TO WORK COORDINATOR** with the following instructions:

- ☒ Your return-to-work status
- ☒ The treating doctor's name, address, and phone number

b. **REPORT TO THE FACILITY IN PERSON** as soon as you are physical able to report and provide your copy of the claim form and the written release from your doctor.

4. **GIVE TO THE TREATING DOCTOR THE EARLY RETURN TO WORK PACKET.**

Bring a copy of the release from the doctor to your DEPARTMENT SUPERVISOR immediately following your visit.

5. **KEEP THE FACILITY INFORMED AT ALL TIMES ABOUT YOUR WORK STATUS.** Following each medical visit, you must provide a release written by your doctor, containing information about your medical condition and your return-to-work status, including physical limitations, if any. You must provide an update no later than 24 hrs following EACH medical visit.

6. **COOPERATE WITH THE FACILITY AND MEDICAL PROVIDERS** in exploring modified (light) duty assignments, if applicable. Whenever possible, EMPLOYEES will work in a modified position within their physical limitations identified by the treating doctor so they may continue to earn their full income as they recover from their injury.

a. You must follow all treatment orders and not exceed restrictions imposed by the doctor while on modified duty or at home. Failure to follow the doctor's restrictions may result in disciplinary action up to and including termination.

7. **ARRANGE** follow-up medical visits outside of working hours or pre-arrange time away with your DEPARTMENT HEAD/SUPERVISOR.

8. **ATTEND ALL SCHEDULED MEDICAL APPOINTMENTS**, unless an emergency arises that forces you to reschedule your appointment. Please notify you supervisor when an emergency requires you to reschedule an appointment.

9. **KEEP YOUR HUMAN RESOURCES REPRESENTATIVE INFORMED** of your current address and phone number, and the name, address and phone number of your doctor.

10. **IF YOU RECEIVE A MEDICAL BILL FOR YOUR WORK-RELATED INJURY**, take it to the Administrator or send it directly to your workers' comp claims adjuster.

11. **IF YOU FEEL THAT YOU ARE NOT RECEIVING ALL THE WORKERS' COMP BENEFITS ENTITLED TO YOU**, please



Corporate Safety Program

ELEMENT 4

Accident/ Incident Investigation

Safety, Health and Environmental Manual

«Job_Number»

contact your supervisor, or Administrator for assistance.

Thank you in advance for your cooperation. It is our goal to ensure the prompt delivery of any Workers' Compensation benefits entitled to you.

Print Team Member's Name

Signature

Team Member's

Date

SIGNED ORIGINAL: EMPLOYEES PERSONNEL FILE / SIGNED COPY: TO EMPLOYEE



Refusal of Medical Treatment

I, _____, state that I have refused medical treatment at this time for a work-related injury to my (describe body part) _____. That occurred on _____ and was reported to _____.

It was of my own will that I refuse medical treatment for this particular injury, and I understand that if I do what future medical treatment for this injury, I must notify management first.

Employee Name (Print)

Date

Employee Signature

ELEMENT 5. EMERGENCY PREPAREDNESS

In order to respond quickly and systematically to any emergency situation, BC&E's aim is to exceed the achievement of maintaining a more than adequate preparation and response level.

1. Purpose

It is the policy of BC&E Corp., that all supervisory level employees, i.e., Site Managers and Trades Group Leaders be First Aid / CPR certified.

2. Responsibility

Supervisors and Trades Group Leaders who have been first-aid/CPR trained will be expected to assist workers who have been injured on the job. Procedures located in the Bloodborne Pathogens Program must be followed. Employees who have not been first-aid/CPR trained who provide CPR or First AID assistance to another employee do so as a "good samaritan", and such action is not supported by management. Untrained employees should seek immediate medical attention for the injured worker by dialing 911.

3. Training

Site Managers and Trades Group Leaders who do not have a valid certificate for receiving first aid training will attend the American Red Cross First Aid Course. Site Managers and Trades Group Leaders will also attend the American Red Cross CPR training course annually. Failure to maintain current First Aid and/or CPR certification may subject Site Managers or Trades Group Leaders to demotion.

4. Procedures

a) Minor First Aid Treatment

First aid kits are stored in the office trailer and in other locations throughout the site. If you sustain an injury or are involved in an accident requiring minor first aid treatment:

- Inform your supervisor.
- Administer first aid treatment to the injury or wound.
- If a first aid kit is used, sign for the items used and indicate usage on the accident investigation report.
- Access to a first aid kit is not intended to be a substitute for medical attention.
- Provide details for the completion of the accident investigation report.

b) Non-Emergency Medical Treatment

For non-emergency work-related injuries requiring professional medical assistance, management must first authorize treatment. If you sustain an injury requiring treatment other than first aid:

- Inform your supervisor.
- Proceed to the posted medical facility. Your supervisor will assist with transportation, if necessary.
- Provide details for the completion of the accident investigation report.

c) Emergency Medical Treatment

If you sustain an injury requiring emergency treatment the following procedures will apply:

BC&E Corp., is concerned that you receive appropriate medical treatment if you are injured on the job.

The State of Florida requires injured workers to obtain medical treatment through a Managed Care Coordinator (MCC) or assume the risk and liability for paying for any and all medical services not rendered by the Managed Care Coordinator (MCC)/Preferred Provider Network. Your supervisor has a list of health care providers and can assist you in selecting a provider from within the provider network.

The State of Florida does recognize that there may be instances where treating with a network provider may not be appropriate. The State has developed a list of exceptions to this rule for when an employee may seek treatment for a work related injury from a medical provider NOT on the provider network list:

If you have a life threatening injury (employee should call 911 and be sent to nearest medical facility).

If you need follow-up care from the same emergency provider.

If the treatment you need is not available within the Insurance company's provider network.

If you are referred by the Managed Care Coordinator to a medical provider outside the provider network.

If the treatment by a non-network provider is pre-approved by our worker's comp. insurance provider.

5. First Aid Instructions To Be Posted At Job Site

In all cases requiring emergency medical treatment, unless you have received first aid / CPR training through BC&E Corp., you are not expected to administer first aid or CPR to an injured associate. Doing so is considered to be a 'good Samaritan' act. Immediately call, or have a co-worker call, to request emergency medical assistance.

First Aid Training

Each employee will receive training and instructions from his or her supervisor on our first aid procedures.

Minor First Aid Treatment

First aid kits are stored in the front office and in the employee lounge. Should an employee sustain an injury or is involved in an accident requiring minor first aid treatment:

1. Inform the immediate supervisor.
2. Administer first aid treatment to the injury or wound.
3. If a first aid kit is used, indicate usage on the accident investigation report.
4. Access to a first aid kit is not intended to be a substitute for medical attention.
5. Provide details for the completion of the accident investigation report.

Non-Emergency Medical Treatment

1. For non-emergency work-related injuries requiring professional medical assistance, management must first authorize treatment. If you sustain an injury requiring treatment other than first aid:
2. Inform your supervisor.
3. Proceed to the posted medical facility. Your supervisor will assist with transportation, if necessary.
4. Provide details for the completion of the accident investigation report.

Emergency Medical Treatment

If you sustain a severe injury requiring emergency treatment:

1. Call for help and seek assistance from a co-worker.
2. Use the emergency telephone numbers and instructions posted next to the telephone in your work area to request assistance and transportation to the local hospital emergency room.
3. Provide details for the completion of the accident investigation report.

FIRST AID INSTRUCTIONS

In all cases requiring emergency medical treatment, immediately call, or have a co-worker call, to request emergency medical assistance.

WOUNDS:

1. Minor: Cuts, lacerations, abrasions, or punctures
2. Wash the wound using soap and water; rinse it well.
3. Cover the wound using clean dressing.
4. Major: Large, deep and bleeding
5. Stop the bleeding by pressing directly on the wound, using a bandage or cloth.
6. Keep pressure on the wound until medical help arrives.

BROKEN BONES:

Do not move the victim unless it is absolutely necessary.

If the victim must be moved, "splint" the injured area. Use a board, cardboard, or rolled newspaper as a splint.

BURNS:

1. Thermal (Heat)
 - a. Rinse the burned area, without scrubbing it, and immerse it in cold water; do not use ice water.
 - b. Blot dry the area and cover it using sterile gauze or a clean cloth.
2. Chemical
 - a. Flush the exposed area with cool water immediately for 15 to 20 minutes.

EYE INJURY:

1. Small particles
 - a. Do not rub your eyes.
 - b. Use the corner of a soft clean cloth to draw particles out, or hold the eyelids open and flush the eyes continuously with water.
2. Large or stuck particles
 - a. If a particle is stuck in the eye, do not attempt to remove it.
 - b. Cover both eyes with bandage.
3. Chemical
 - a. immediately irrigate the eyes and under the eyelids, with water, for 30 minutes.

NECK AND SPINE INJURY:

If the victim appears to have injured his or her neck or spine, or is unable to move his or her arm or leg, do not attempt to move the victim unless it is absolutely necessary.

HEAT EXHAUSTION

Excessive heat creates a heat exhaustion safety hazard primarily to the field staff employees. Care must be taken to ensure that employees are properly dressed, scheduled for work breaks, and drinking water is available adequate. Reference Section Field Staff Accommodations and Requirements for additional information to this subject.

1. Loosen the victim's tight clothing.
2. Give the victim "sips" of cool water.
3. Make the victim lie down in a cooler place with the feet raised.

EMERGENCY NOTIFICATION:

All BC&E projects shall maintain a current Emergency Contact List. The Emergency Contact List should include the following names and information and their respective Main Office, Site Office, Home, pager, and cellular phone numbers:

Project Name and Number		BC&E #
Project Manager		
Project Superintendent		
Safety Representative		

The following are to be included on the emergency contact list. These numbers will be used in the information exchange as noted below in the Communications Protocol:

Authorities:	Police:	
	Fire:	
Medical Emergency:	Hospital:	
	Clinic:	
Utility Emergency:	Gas:	
	Electricity: :	
	Telephone::	
	Water & Sewer::	

Communications Protocol: Based on the type of emergency, the following Communications Protocol is to be followed to advise the appropriate people. The following information should be provided when calling for emergency assistance and advising the appropriate people of the incident.

INFORMATION EXCHANGE:

1. Type of emergency. (Medical, Utility, FAA, MIA Operation)
2. Time of accident.
3. Location of accident.
4. Access point to accident site.
5. Specific location on Project site.

Responsibilities subsequent emergency notification:

Immediately remove the employees from the accident / incident site and retain them for Questioning / witness statements. No work is to continue until a member of the CM advises a return to work order. Prepare the required documentation for an immediate accident / incident review with CM and the appropriate authorities.

Catastrophic Procedures:

In the event a catastrophic event occurs, the same emergency notification procedure is to be followed. Many catastrophic events create situations and/or conditions that may further damage property and injure people. Extra care should be taken to insure that the accident / incident area is secured so that persons unaware will be prevented from entering a dangerous area or situation. Other than the responsible emergency response authorities, all other persons are to be removed and retained from access to this type of area / condition. The responsibilities subsequent to the notification procedure and securing of the area are to be followed as noted above. Catastrophic events often draw the attention of the news media. To protect the interest of the persons and companies involved, and the Project Team as a whole, all requests by the media are to be referred to the BC&E Corporate Office Spokesperson for comment / response.

HURRICANE EVACUATION PLAN:

Time/Event	
Tropical Storm Watch: Tropical storm conditions with sustained winds from 39 to 73 mph are possible in the watch area within the next 36 hours.	- Contractor and CE&I Project Personnel will identify non-essential MOT devices and signage that can be removed in the event of a Hurricane. - RPM's and other lane delineation devices will be inspected and repaired within 24 hours.
Tropical Storm Warning: Tropical storm conditions are expected in the warning area within the next 24 hours. Flood Watch: High flow or overflow of water from a river is possible in the given time period. It can also apply to heavy runoff or drainage of water into low-lying areas. These watches are generally issued for flooding that is expected to occur at least 6 hours after heavy rains have ended.	- Contractor to check drainage control structures both temporary and permanent for plugs or obstructions that may prevent or restrict flow. - Contractor to secure and cover all open manholes, inlets, or drainage structures. - Contractor to secure all signal and lighting mast arms and poles not properly anchored.
Hurricane Watch: Hurricane conditions (sustained winds greater than 73 mph) are possible in the watch area within 36 hours. Flood Warning: Flooding conditions are actually occurring or are imminent in the warning area.	- Contractor will remove all small equipment, tools, storage containers, or any device that are not properly anchored, secured, or may pose hazardous conditions in the event of a Hurricane. - Height of stock piled materials such as soil, aggregate, pipe, or any other article that may be considered a projectile will be reduced to avoid excessive airborne debris or removed from the project or temporarily placed in an open trench.

	▪ Lane closures will be removed to allow for emergency vehicle access. No new lane closures will be initiated.
Hurricane Warning: Hurricane conditions are expected in the warning area in 24 hours or less.	▪ Contractor and CE&I personnel will inspect the project for compliance and safety with the preventive measures outlined herein. ▪ Contractor will have a small labor crew to address minor issues that may be identified during the site inspection.
Hurricane Clearance: Issuance of clear conditions by NOAA or County Officials.	▪ Contractor will clear roadway debris, secure damages and restore MOT devices. ▪ Contractor and CE&I personnel assess damages to the project, document, and provide adequate representation. ▪ In the event of a major storm with catastrophic consequences, the Contractor may not be able to restore lane closures or continue regular work. This is on a case-by-case basis and under the direction of the District Construction Engineer.

Inclement Weather Action Plan:

Objective: The primary objective of the Inclement Weather Action Plan is to have a comprehensive program in place to manage the required actions to secure the project site for the impending weather conditions. Much like the Hurricane Protection Action Plan, appropriate actions will be taken to ensure the safety of employees and secure the Buildings, site, and surrounding areas in order to minimize storm damage. The emphasis of this plan is on thunderstorms and excessive heat related issues. Contractor is to develop an Inclement Weather Action Plan within their Environmental Health and Safety Program based on no less than the minimum as listed below.

Thunderstorms: Thunderstorms produce lightning and rain that must be planned for and anticipated. Care must be taken for the damage these elements can produce. The General Superintendent shall be assigned the responsibility to monitor and be apprised of the most current weather advisories. This information can be obtained through radio and television broadcasts and or contacting the nearest weather bureau. Provisions should be made to have a battery-powered radio with extra batteries in the event of electrical power loss. The objective is to advise the appropriate persons when a thunderstorm watch and/or warning have been issued in order to implement the Inclement Weather Action Plan as described below:

Secure all building openings to prevent rain from entering and damaging finishes in both the new construction areas and existing buildings. Assign a task group to routinely inspect the areas subject to rain infiltration and correct any problems accordingly. Move all employees exposed to open areas subject to lightning strikes to a safe area.

The list should be evaluated and modified to the job specific requirement

1. Plywood, framing materials, and fasteners to cover window and door openings.
2. Battery powered AM/FM radio with extra batteries
3. Flashlights with extra batteries.
4. Cameras with extra batteries and film.
5. Miscellaneous tools: brooms, shovels, power-actuated nailers, hammers, screw guns.
6. Wet vacuums
7. Polyethylene sheeting
8. Rope, masking tape, duct tape, assorted nails/fasteners
9. Drinking water.

10. First aid supplies.
11. Fuel for equipment.
12. Extension cords.
13. Portable generator.
14. Sump pumps for excavations, pit and trapped water,
15. Cleaning supplies.
16. Clean-up site, floors, and areas of the project Secure sufficient quantity dumpsters. Reference Chapter 8-West Handling and recycling for further information.
17. Evaluate status of materials and equipment on site and building floors. Secure in an appropriate manner that will prevent the material from being damaged or being dislodged / blown from its storm position. Reference Chapter 7 - AOA Jobsite Setup for further information concerning the appropriate action to take for cranes, heavy equipment, and fuel storage.
18. Secure Field Office trailers and cover window and door openings. Secure record files, accounting files, back-up computer files and send to alternate storage with all critical project files
19. Evaluate current work in progress and incomplete work and secure appropriately. Structural elements, CMU and drywall wall partitions, and doors/frames that are incomplete may require temporary bracing. Confirm weather conditions are safe before issuing a back-to-work order.

Report any incident or weather damage to the CM.

Hazardous Substances Encounter:

In the event a hazardous substance is encountered or a material is suspect, work is to immediately to stop and the area secured to prevent persons unaware of the situation being exposed to the hazard. Contractor is to develop procedures within their Health and Safety Program that advise their employees of the uncovered hazard.

Hazardous Substances Discharge:

In the event that hazardous substances are accidentally discharged by damage to or failure of equipment or materials containing such hazards, the same procedure outlined in Item 6, Hazardous Substances Encountered are to be followed. Contractor is to develop procedures within their Environmental and Safety Program that advise their employee's appropriate actions to Subcontract Administration.

ELEMENT 6. EMPLOYEE TRAINING

It is BC&E's goal to develop a career path at all levels of the Organization in order to ensure that the work force continuously improves their capabilities to perform the assigned tasks and to progress through the different ranks of the Organization.

Workplace safety and health orientation begins on the first day of initial employment or job transfer. Each employee has access to a copy of this safety manual, through his or her supervisor, for review and future reference, and will be given a personal copy of the safety rules, policies, and procedures pertaining to his or her job. Supervisors will ask questions of employees and answer employees' questions to ensure knowledge and understanding of safety rules, policies, and job-specific procedures described in our workplace safety program manual. Their supervisors will instruct all employees that compliance with the safety rules described in the workplace safety manual is required.

Job-Specific Training

Supervisors will initially train employees on how to safely perform assigned tasks.

Supervisors will carefully review with each employee the specific safety rules, policies, and procedures that are applicable and that are described in the workplace safety manual.

Supervisors will give employees verbal instructions and specific directions on how to do the work safely.

Supervisors will observe employees performing the work. If necessary, the supervisor will provide a demonstration using safe work practices, or remedial instruction to correct training deficiencies before an employee is permitted to do the work without supervision.

All employees will receive safe operating instructions on seldom-used or new equipment before using the equipment.

Supervisors will review safe work practices with employees before permitting the performance of new, non-routine, or specialized procedures.

Periodic Retraining of Employees

All employees will be retrained periodically on safety rules, policies and procedures, and when changes are made to the workplace safety manual.

Individual employees will be retrained after the occurrence of a work-related injury caused by an unsafe act or work practice, and when a supervisor observes employees displaying unsafe acts, practices, or behaviors.

All BC&E's employees have the Basic skills, education and training to perform their scope of work. In addition, each employee has an understanding of the safety regulations that apply to their work. The chart on the following page includes a partial listing of safety related training that BC&E will impart depending on the exposure of the employee.

Training Attendance Required

Subject	Trade
Hazard recognition	All employees

Hazard Communications	All employees
Fall Protection	All employees working at 6'-0 or more above lower level
Ladder Safety	All employees who use ladders
Laser Usage	All employees who use ladders
Powder-Actuated Tools	All employees
Excavation and Trenching	Underground Crews
Respirators	All employee expected to use any type of respirators
Hand and Power tool safety	All employees
Confined Spaces	All who may enter a confined space
First Aid and CPR	At least two employees from each firm
Blood Borne Pathogens	All with First Aid Training
Fire Prevention and Protection	All employees
Lockout procedures	Awareness all employees, specifics for all electricians
Aerial Lift Operations	All employees who work from this type of lift.
Scissors Lift Operation	All employees who will work from this type of lift
Hearing Protection	All employees
Hazard reporting	All supervisors
Rigging	All employees who will do any rigging
Hot Work Procedures	Any employee whose work may produce heat or sparks
Service Interruption Program	All employees
Incident and accident reporting	All employees
Requirements for job clean-up	All employees

ELEMENT 7. PERSONAL PROTECTIVE EQUIPMENT

Protect the workers of the effects of the uncontrolled energy during incidental contacts and from the effect of environmental contaminants that could produce injuries or occupational illnesses.

The Superintendent is responsible for procuring, issuing, using, and maintaining personal protective equipment as required in this Section. He shall survey the needs for such equipment in advance and see that it is available for use by employees when the need arises. He shall see that foremen issue required equipment to employees and instruct the foremen to enforce its use. He shall provide for regular inspection of the equipment to see that it is in safe working condition, and provide for its care and maintenance.

Each employer at the project site shall review in advance its projected needs for PERSONAL PROTECTIVE EQUIPMENT (PPE) and have such equipment readily available for use by its workers when required.

ALL BC&E PROJECT SITES ARE HARD HAT PROJECT SITES.

Employers shall maintain Personal Protective Equipment (PPE) in serviceable condition. Such equipment and its use shall include but may not be limited to the following:

1. Hard Hats - Hard Hats shall be worn by all employees and visitors while at the project site. Hard hats need not be worn while inside project site offices, trailers or shanties.
2. Eye and Facial Protection - Eye and facial protection shall be issued to all workers engaged in work creating hazards to eyes and the face area. Such protection shall be selected from the "Eye and Face Protector Selection Guide" shown in Table E-1 of the OSHA regulations.
3. Respirators - Respirators shall be issued to employees exposed to the inhalation of harmful substances. Selection of respirators shall be made from Table E-4 of the OSHA regulations and from the on-site Material Safety Data Sheets (MSDS). Where employees may be exposed to inhalation of contaminated or toxic atmospheres, respiratory protective equipment shall be issued and used. Table E-4 of the OSHA Construction Regulations shall be used as a guide in the selection of appropriate respirators.
4. Hearing Protection - Employees exposed to sound levels in excess of those shown in Table D-2 of the OSHA regulations shall wear hearing protection meeting the requirements of OSHA 1926.101, (a) through (c). See Section on "environment controls - noise" for additional requirements.
5. Safety Belts - Employees exposed to a fall hazard greater than 6 feet shall wear safety belts meeting the requirements of OSHA 1926.104, (a) through (f). Safety belts shall be issued to and used by employees when they are at work in any area where they are subject to a fall and the use of guard rails, ladders, scaffolds, catch platforms or safety nets is impractical. The safety belt lanyard shall be of 1/2-inch nylon rope or equivalent, with a maximum length to provide for a fall of no greater than 6 feet. Safety belt lanyard shall be secured to a structural member of the building or structure. Where the lanyard cannot be secured to a structural member of the building or structure, it shall be secured to a lifeline of 3/8-inch wire rope or equivalent which is secured to a structural member of the building or structure.
6. Employers shall issue Personal Protective Equipment to their workers. This equipment shall be inspected, maintained and cleaned as indicated by the equipment's manufacturer. All employers will be held responsible to assure the workers wear their Personal Protective Equipment.

ELEMENT 8. HEALTH CONTROL-HAZARD COMMUNICATION

Health Hazard Identification
Health Hazard Control
Information/Training/Education
Industrial Hygiene Monitoring
Health Maintenance Program
Professional Assistance
Communications
Records

The OSHA Hazard Communication requires every employer to have a written Hazard Communication Program describing how the requirements of the standard will be met.

BC&E's Hazard Communication program is intended to achieve compliance with the OSHA Hazard Communication Standard, and use the procedures herein shall be fully implemented by the Project Manager at each project.

PROCEDURES FOR HAZARD DETERMINATION:

All chemicals produced or imported in the United States must be evaluated to determine if they are hazardous. Manufacturers and importers are required to perform the evaluations and report the results on Material Safety Data Sheets (MSDS). Employers who are end users of chemicals are not required to evaluate chemicals unless they choose not to rely on evaluation performed by the manufacturers and importers. Information resulting from such evaluation shall be reported on MSDS provided to BC&E by suppliers of hazardous chemicals.

PROCEDURES FOR MULTI-EMPLOYER WORKPLACES:

To comply with OSHA requirements for the use or storage of hazardous chemicals at Multi-Employer Workplaces, BC&E shall prepare and post a notice in the field office at each project site. The notice shall be posted adjacent to the OSHA Poster for the life of the project and shall carry the following message:

NOTICE

INFORMATION ABOUT HAZARDOUS CHEMICALS

BC&E has Material Safety Data Sheets (MSDS) for hazardous chemicals they use or store at this workplace. The MSDS contain information about precautionary measures that need to be taken to protect employees from exposure to the chemicals during normal operation conditions and in foreseeable emergencies. BC&E also has a Written Hazard Communications Program describing the Labeling System they use for hazardous chemicals.

Employers, employees and their designated representatives may review the MSDS and Written Hazard Communications Program during working hours in the BC&E field office upon request to the Project manager. Copies of the MSDS and Written Hazard Communications Program will be furnished upon request.

PROCEDURES FOR LABELING CONTAINERS OF HAZARDOUS CHEMICALS

Containers of hazardous chemicals must be labeled or tagged with information about the contents. Suppliers are required to label or tag each container of hazardous chemicals they ship. Containers of hazardous chemicals may be identified by the presence of warning labels or tags affixed to incoming containers or by receipt of Material Safety Data Sheets (MSDS) describing the hazardous nature of chemicals that suppliers have shipped. When BC&E receives containers which have been so identified, and which they will use or store, the following procedures shall be implemented.

- 1) Inspect each incoming container of hazardous chemicals and ensure that each is labeled or tagged with the following information:
 - a) The identity of the hazardous chemical. The identity should match that shown in the "Identity" section in the upper left corner of the form of the Material Safety Data Sheet for that chemical.
 - b) Appropriate hazard warnings.
- 2) Do not deface or remove Labels from containers of hazardous chemicals. Labels that are missing, illegible, defaced or not in English shall be replaced. Prepare a Label or Tag with information required in No. 1 above and affix to the container. Refer to the MSDS for required information.
- 3) Labels are not required on portable containers into which hazardous chemicals are transferred from Labeled containers and which are intended only for immediate use of the employee who performs the transfer.
- 4) The following chemicals or products are subject not to the Hazard Communication labeling requirements:
 - a) Pesticides.
 - b) Foods, drugs and cosmetics.
 - c) Tobacco and alcoholic beverages.
 - d) Hazardous waste.
 - e) Wood or wood products as a single unit.
 - f) Any hazardous chemical purchased "over the counter" as a consumer product, providing that it is used in same manner as normal consumer use and which use results in a duration and frequency of exposure not greater than exposure experienced by consumers.

PROCEDURES FOR LISTING OF HAZARDOUS CHEMICALS AND MATERIAL SAFETY DATA SHEETS

BC&E is required to have a list of Hazardous Chemicals and Material Safety Data Sheets (MSDS) on each hazardous chemical they use or store on site. Suppliers of the Hazardous Chemicals are required to ship the MSDS with the containers of hazardous chemicals, or send them prior to or at the time of shipment. The MSDS and list of Hazardous Chemicals shall be maintained in the BC&E project office as follows:

Inspect incoming containers for labels identifying the contents as hazardous chemicals. When containers are so labeled, verify that the required MSDS has also been received. If the MSDS has not been received, contact the supplier immediately and follow up to obtain the required MSDS. Make a written record of this contact and follow up activities.

Review MSDS received for completeness. BC&E is not responsible for the preparation and accuracy of the information on MSDS, however, they are required to review each MSDS to ensure that suppliers have

provided all of the required information. OSHA Form No. 174 is most frequently used for MSDS, however, other formats are acceptable as long as they provide the same information as OSHA Form No. 174. Blank spaces are not permitted on MSDS forms. If any item is not applicable, or information is not available, the space on the form must be marked "(N/A)" to indicate that. Only sections marked "Optional" may be left blank. Where any required information has been omitted, contact the supplier and follow up to obtain a corrected and complete MSDS. Note the dates of contact and follow up in the bottom margin of the front side of the MSDS. Note the date of the MSDS review in the top margin of the front side of the MSDS.

Assign a number to each MSDS received and in the order in which they are received, beginning with the number 1. Print the number and the date received in the upper right corner of the front side of the MSDS. Maintain all MSDS in numerical order in a three ring binder or file folder.

Prepare a list of Hazardous Chemicals. List the number of each MSDS in numerical order with the identity of each chemical taken from the "identity" section in the upper left corner of the front side of the MSDS. Place the list at the front of the MSDS binder or folder. Maintain the list in current condition by adding each new MSDS as received.

Whenever employees are visibly contaminated with hazardous chemicals they shall proceed at once to the nearest washing facility or source of water and wash away the visible contamination. Class "A" fire Extinguishers (2-1/2 gallon pressurized water), which may be readily available throughout the workplace, are charged with water and any be used for washing away visible contamination in emergency situations.

PERSONAL PROTECTIVE EQUIPMENT:

Appropriate personal protective equipment will be issued to employees assigned to work in areas where they will be exposed to hazardous chemicals. Employees will use personal protective equipment issued at all times while in the work area. Personal protective equipment issued at all times while in the work area. Personal protective equipment includes the following:

1. Respirators
2. Eye and face protection
3. Head protection
4. Gloves
5. Boots
6. Protective garments

OSHA Standard 1926.102 and 1926.103 describes selection criteria for eye, face and respiratory protective equipment.

LABELING CONTAINERS OF HAZARDOUS CHEMICALS:

Suppliers of hazardous chemicals are required to affix warning labels or tags to containers of hazardous chemicals they ship indicating that the contents are hazardous. The labels and tags will identify the hazardous chemicals and include appropriate hazard warnings. BC&E will rely on the labeling systems provided by suppliers to identify containers of hazardous chemicals.

MATERIAL SAFETY DATA SHEET:

Suppliers of hazardous chemicals are required to provide users with a Material Safety Data Sheet (MSDS) include information about the identity, ingredients, health hazards, precautions and control measures for the hazardous chemical. BC&E maintains a list of hazardous chemicals they store or use on site, and an MSDS for each chemical. The list and MSDS are available for review by BC&E employees in the BC&E field office upon request to the Project manager. He will assist employees in using the appropriate hazard information upon request. Employees should comply with all warnings, instructions, precautions and control measures shown in the MSDS to avoid exposure to the hazardous chemical.

TABLE 1

Difficulty in swallowing	Chills and temperature variations
Nausea	Dryness of the skin
Vomiting	Excessive perspiration
Stomach cramps	Variation of pulse rate
Diarrhea	Pounding of the heart
Extreme dryness of mouth	Double vision
Extreme salivation	Lack of coordination
Foaming at the mouth	Slurred speech
Tremors	Hallucinations
Muscle cramps	Coughing
Convulsions	Tightness of the chest
Paralysis	Shortness of breath
Headache	Difficulty in breathing
Ring in the ears	Eye irritation
Light headed	Tearing of the eyes
Dizziness	Loss of consciousness
Skin Sensations	Skin Conditions
Burning	Blisters
Itching	Burns
Stinging	Rashes
Numbness	Unusual coloration
Sensations of the extremities	Swelling
Heat or cold	Ulcerations

TABLE 2

<u>Common Health Hazard</u>	<u>Common Hazardous Chemicals</u>	<u>Product Effect of Types Exposure</u>
Carcinogen Cancer Causing	Asbestos fibers	Insulation
Corrosive	Acids, Cleaners and Solvents	Irreversible destruction to living tissue
Highly Toxic	Carbon Monoxide	Lethal from minimum exposure with internal combustion engine's Carbon Monoxide Exhaust
Irritant	Acetic Acid Silicone sealants	Inflammation of living tissue
Sensitizer	Acetone Cleaners and solvent	Allergic reaction
Toxic	Mineral spirits Paint Thinner	Lethal with prolonged exposure

TABLE 3

A.	Hepato-toxicins	Chemicals that produce liver damage.
	Signs and Symptoms	Jaundice, liver enlargements.
	Chemicals	Carbon tetrachloride, nitro-samines
B.	Nephrotoxins	Chemicals which prduce Edema
	Chemicals	Halgoneated hydrocarbons; uranium.
C.	Neurotoxins	Chemicals which produce primary toxic effects on the nervous system
	Signs and Symptoms	Narcosis, behavioral changes, decreases in motor functions.
	Chemicals	Mercury, carbon disulfide.
Agents, which act on the blood, Decreased hemoglobin function; or hematopoietic system deprive the body tissue of oxygen.		
	Signs and Symptoms	Cyanosis, loss of consciousness.
	Chemicals	Carbon monoxide, cyanides.
Agents, which damage the lung. Chemicals, which irritate or damage the pulmonary tissue.		
	Signs and Symptoms	Cough, tightness in Chest, shortness of breath.
	Chemicals	Silica, asbestos.

HAZWOPER - HAZARDOUS WASTE OPERATIONS & EMERGENCY RESPONSE:

1. Under OSHA regulation 1910.120, a HAZWOPER (Hazardous Waste Operations & Emergency Response) Program will be in effect. The BC&E Project manager and or his designee will be the:
 - a. Qualified Person
 - b. Site Safety & Health Supervisor
2. HAZWOPER Committee shall be formed with the BC&E Project manager or his designee as head of the committee. The HAZWOPER Committee shall meet on a bi-weekly basis (every two weeks) or every time a foreman safety meeting is held.
3. All new materials and chemicals brought onto the site shall be accompanied by a Material Safety Data Sheet (MSDS) or Chemical Fact Sheet.
4. All new Material Safety Data Sheets and Chemical Fact Sheets shall be reviewed by the HAZWOPER Committee.
5. Sections IV, V, VI, VII & VIII of the Material Safety Data Sheets shall be reviewed. BC&E and the Subcontractors will:
 - a. Review their first aid kits and facilities to make sure that the appropriate first aid supplies and rescue equipment is at the site.
 - b. The first aid supplies and rescue equipment shall be kept readily available for immediate use in the event of an emergency. The supplies and rescue equipment shall be maintained kept as per the manufactures suggested method.
 - c. All workers designated to use rescue equipment such as respirators, harnesses, air testing monitors, protective wear such as gloves, boots and suits shall be trained. Written records kept at the site shall document this training.
 - d. All subcontractors shall submit a copy of their HAZWOPER Training Records to the BC&E Project managers.
6. All construction material and chemical spills shall be cleaned up as outlined in Section VII of the Material Safety Data Sheet and the Emergency Response Section of the chemical Fact Sheet.
7. When required, the appropriate City, State or Federal Governmental Agencies shall be notified in the event of a construction material or chemical spill.
8. All Federal SARA Title III or Local Right-to-Know Laws, record keeping and report filing shall be complied with.
9. A semi-annual Joint HAZWOPER Committee Safety Meeting between the Project Site Committee Member and the local government Emergency Services should be held. An agreed written Project Emergency Response Procedure between the Project Site Committee Members and the local government Emergency Service should be put into effect.

10. The project Manager, Executive, Territory General Superintendent and BC&E Safety Department should be immediately notified if any "HAZWOPER Clean Up Procedures" are used.
11. The BC&E Project manager shall complete a written Accident Investigation Report in the event a chemical or construction material is spilled that requires "HAZWOPER Clean Up Procedures". A copy of the Accident Investigation Report shall be sent to the Project Manager, Territory General Superintendent, Executive, Risk Manager and Corporate S

ELEMENT 9. GROUP MEETINGS/COMMUNICATIONS

The following activities are intended to be part of the overall communications effort, in order to maintain a system to ensure the continuity different levels of group meetings and personal contacts with the workers. These meetings are for task orientation, delivery of special messages, inform, instruct and motivate, as well as, to review their performance in the different areas of assignment.

Safety Meetings

The following are the minimum safety meeting requirements for all contractors and subcontractors working on the project site.

Safety Meetings must be conducted once a week, preferably at the same time each week. It is the responsibility of each Site Manager to conduct safety meetings in an effective manner. He/she has several sources from which to obtain information on the topic for the meeting.

1. Safety Meeting Topics:

- a. "Weekly Safety Meetings for the Construction Industry".
- b. "Tool Box Safety Talks".
- c. Material Safety Data Sheets.
- d. Resources provided by company insurance carrier.
- e. Other timely material provided by the Safety Representative.
- f. Recent project accidents, cause(s) plus corrective action taken and/or planned.
- g. Future construction activities including potential hazards plus necessary controls.

2. Safety Meeting Guidelines:

- a. Safety meetings are normally of the "standup" or "on-the-job" type of short duration. Twenty minutes is suggested as maximum. Occasionally a film or formal presentation of longer duration requiring employees to gather in a meeting room may take the place of a "standup" meeting.
 - b. Work site employees are required to attend safety meetings. Office employees in the administration area and other groups in sheltered work areas will attend safety meetings monthly. Only employees absent for sickness or on leave are excused from the requirement to attend safety meetings at the stipulated intervals. If necessary, additional safety meetings will be held for full coverage of assigned personnel. Employees whose absence is short term will be given information covered at missed safety meetings upon their return.
 - c. A Site Manager or Trades Group Leaders shall conduct or be present at all employee safety meetings. Employee participation should be encouraged.
 - d. The Safety Representative will coordinate the availability of safety films with the site manager and assist in their scheduling and showing.
 - e. "On-the-job" and "off-the-job" safety topics are appropriate for discussion at employee safety meetings. Administration matters not contributing to safety are not appropriate topics.
3. The Safety Representative should call upon the insurance carrier, fire department and the Department of Industry, Labor and Human Relations' specialist for assistance.

4. Safety meetings will be reported in writing on what took place and when the meeting was held on the Safety Meeting Report Form. This form is to be turned in with the Site Manager's weekly paper work

Tool Box Meetings

BC&E employees and subcontractor will hold and document safety meetings for their crews and workforce at the start of each day. These meetings will cover the information developed in the preplanning process and will be conducted during the morning bus ride from the parking lot to the work area. Documentation of the discussion topics shall be maintained and forwarded to the Construction Manager's SHE staffs weekly.

Project Wide Safety Meetings

All BC&E and subcontractors' employees working on site will attend a weekly project wide safety meeting. BC&E will rotate Project Management team members to conduct this meeting. BC&E will be responsible for documenting the attendance and subject matter covered in this meeting and forwarding a copy to the CM.

Safety Leadership Team Meetings

Monthly safety leadership team meetings will be held to review the status of the various programs, and to improve the SHE performance on the project site. This team will consist of personnel from the owner, CM, and the representatives from major contractors on the project.

ELEMENT 10. GENERAL PROMOTIONS

Safety Bulletin Board Program

SHE related updated information will be posted and renewed regularly to maintain workers abreast and interested in safety activities. BC&E will use of Statistics and Facts to educate the work force emphasizing in Critical Topics pertaining to our Project.

Housekeeping

Housekeeping deserves special attention within BC&E's SHE Program. Poor housekeeping not only poses a risk for accidents, but also hampers Productivity and Quality. The FAA restrictions and risk that planes may get foreign objects within their engines, makes BC&E aware of this important obligation.

Records of Program Promotion Activities

BC&E will maintain a file with all the different Safety Promotions that have been posted in the Project.

Information Distribution

SHE related information would be distributed to each contractor or subcontractor in the monthly Safety Leadership Team meetings. The information distributed will be that which could have an impact on the Environmental Health and Safety of the project. BC&E Corp and subcontractor are responsible for distributing this information to their employees.

SHE Bulletins

SHE bulletins will be distributed to all contractors when entering or leaving the site, or posted in the lunch area. These bulletins will be reserved for issues that we believe need to be placed in the hands of employees quickly. Issues could include the facts concerning an incident/spill, or information that could prevent future incidents on the site.

ELEMENT 11. HIRING AND PLACEMENT

BC&E actively coordinates with Human Resources Department that the prospective employees meet the physical and mental requirements of the position, verify pre-employment and pre-placement qualifications, enforce the Drug/Alcohol Free Policy and to conduct the initial general orientation and induction to the Organization.

Drug / Alcohol Testing and Substance Abuse Policy

The BC&E job sites are a drug and alcohol free work environments. Any employee found in possession, or under the influence, of alcohol or any illegal drug will be removed immediately from the project site. Employees of all firms working at the construction project(s) sites will comply with the following policy guidelines as a condition of employment.

Drug and Alcohol Screening

To ensure a drug and alcohol free workplace, all BC&E's employees will be required to take periodic drug or alcohol tests as a job requirement. These tests include, but are not limited to urine, breath, and blood tests for evidence of alcohol, drugs or prohibited substances.

Tests will occur as a result of:

Pre-employment examination.

Reasonable suspicion of policy violation.

Post incident / accident.

Random testing.

Routine physical exams required by an employer.

Each of the above conditions is explained in further detail in the following information within this section.

Entry onto the project(s) site is conditioned upon the employer's right to search the person and the personnel effects of any employee for illegal drugs, alcohol, and firearms or prohibited substances. From time to time and without warning, searches by authorized company representatives will be conducted.

Consent

As part of this policy all present and future employees are required, as a condition of employment at the construction project(s) site, to sign a consent form agreeing in advance to submit to any medical examination or tests as required by the employer.

Prohibited Acts

The distribution, use, sale, dispensation, possession or manufacture of alcohol, illegal drugs, prohibited substances or the possession of drug paraphernalia the abuse of prescription drugs absolutely prohibits on the project(s) premises. Employees are not permitted on the project(s)

construction sites, parking lots or offices if their body system contains the presence of any detectable amount of any illegal and prohibited substances.

Pre-Employment Testing

Prior to starting work at the site, BC&E and subcontractors' employees and new applicants for employment will be required to pass a drug and alcohol screen. Any employee or applicant who tests positive for controlled substances will not be allowed to work at the project at that time or for the duration of the project.

Drug Testing - Current Employee

The testing of current employees may be performing as a result of the following incidents:

Post Accident Testing; following an accident or "near miss", the employer may elect to test injured employees as well as other employees involved in the events leading to the accident.

Reasonable Suspicion Testing: when an employee, because of his observed abnormal behavior causes his/her supervisor to suspect that drugs or alcohol are influencing that behavior.

Random Testing: will be conducted on a job wide, regular basis and arranged by the employer and dictated by contractual agreements with clients, or a management decision.

The results of these drug tests are considered confidential. Positive results may result in disciplinary action up to, and including discharge. However, the employer will not discharge an employee without performing a confirming test on the sample that showed positive on the initial drug screen.

Post Accident and Incident Testing

All employees involved in an accident or incident' which causes or could have caused personal injury, property damage, fire, hazardous material spill or release, will be subject to post accident and incident drug testing. Any employee who tests positive for controlled substances will be removed from the project site and not allowed to work on site for the duration of the project.

Random Testing

During the course of the construction activities on the project, periodic random drug testing will take place. The selection method will be random selection of badge numbers with no consideration of employer, position or previous testing.

Approximately 10 percent of all workers will be selected for random screening every thirty days. In the event that BC&E Corp. or other persons associated with the PROJECT should have reasonable suspicion that an employee at the site may be under the influence of alcohol or illegal drugs, such employee will be subject to a random drug test. All these tests are at the expense of BC&E Corp.

Any individual who fails a random drug screen will be removed immediately from the site and not allowed to work on site for the duration of the project.

Positive Results

When the initial testing is completed and the test identifies the presence of controlled substances, the Medical Technician will notify BC&E, informing him that the employee's positive tests are being sent for confirmation.

Disciplinary Action

When positive results from the initial test are known, BC&E will take immediate action. The employee will not be allowed on the project site such time as the test results are confirmed as positive or negative.

Compliance

BC&E in order to comply with the Drug Free Workplace Act of 1988, will report any convicts under a criminal drug statute for violation occurring on or off company premises within 5 days of the occurrence. Violations of this policy, including any refusal to submit to the required testing, or for the giving of false information or misleading answers during the medical or physical examination, will result in disciplinary action up to and including discharge or refusal to hire in the case of a potential employee.

Drug Awareness

The Construction Manager, recognizes the dangers of drug abuse as potential safety, health and security problems, and recommends that contractors working on each construction project site furnish educational materials to employees, through posters and tool box safety meetings relevant to drug and alcohol abuse. While this construction program does not have an Employee Assistance Program all persons in need of help dealing with such problem are encouraged to contact their respective employers about available rehabilitation programs.

Prescription Medications

Any employee working at the project site who is taking a prescription medication shall report such their management. BC&E Corp's management shall review the medication and advise the Construction Manager of any possible side effect or hazards which might be caused as a result of such medication. In the event that the medication will limit the employee's ability to perform normal duties, the employer will make arrangements for modified duty or remove the employee from the site until the medication can be changed or eliminated.

Training Requirements

Each Prime or Sub-Contractors shall furnish certification that each individual who will be assigned to the project has received the EMS training listed for their respective trade in the section titled "Minimum Training Requirements". Training documentation shall be available for review by the Construction Manager upon request. Training documentation shall include date of training, outline of curriculum, length of class, and name of instructor who provided the training.

ELEMENT 12. GENERAL SAFETY RULES, POLICIES, AND PROCEDURES

The safety rules contained on these pages are guidelines for the appropriate and desirable performance of the workers before situations and activities with a high potential of loss. They have been prepared to protect you in your daily work. Employees are to follow these rules, review them often and use good common sense in carrying out assigned duties.

In order for this safety program to be effective, it is vital that all employees adhere to the construction industry safety and health standards. The following is a summary of some of the basic standards and rules that must be followed by all BC&E employees. This list should in no way be considered a substitute for any provisions of the Occupational Safety and Health Act. All employees must be trained on the contents of these rules.

ALL EMPLOYEES

Housekeeping

1. Use caution signs or cones to barricade slippery areas.
2. Do not store or leave items on stairways.
3. Do not block or obstruct stairwells, exits or accesses to safety and emergency equipment such as fire extinguishers or fire alarms.

Lifting Procedures

General

1. Test the weight of the load before lifting by pushing the load along its resting surface.
2. If the load is too heavy or bulky, use lifting and carrying aids such as hand trucks, dollies, pallet jacks and carts, or get assistance from a co-worker.
3. Never lift anything if your hands are greasy or wet.
4. Wear protective gloves when lifting objects with sharp corners or jagged edges.
5. When lifting
6. Face the load.
7. Position your feet 6"-12" apart with one foot slightly in front of the other.
8. Bend at the knees, not at the back.
9. Keep your back straight.
10. Get a firm grip on the object with your hands and fingers. Use handles when present.
11. Hold objects as close to your body as possible.
12. Perform lifting movements smoothly and gradually; do not jerk the load.
13. If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.

14. Set down objects in the same manner as you picked them up, except in reverse.
15. Do not lift an object from the floor to a level above your waist in one motion. Set the load down on a table or bench and then adjust your grip before lifting it higher.

Ladders and Step Ladders

1. Read and follow the manufacturer's instructions label affixed to the ladder if you are unsure how to use the ladder.
2. Do not use ladders that have loose rungs, cracked or split side rails, missing rubber foot pads, or are otherwise visibly damaged.
3. Keep ladder rungs clean and free of grease. Remove buildup of material such as dirt or mud.
4. When performing work from a ladder, face the ladder and do not lean backward or sideways from the ladder.
5. Allow only one person on the ladder at a time.
6. Do not stand on the top two rungs of any ladder.
7. Do not stand on a ladder that wobbles, or that leans to the left or right.

Climbing a Ladder

1. Face the ladder when climbing up or down.
2. Do not carry items in your hands while climbing up or down a ladder.
3. Maintain a three-point contact by keeping both hands and one foot or both feet and one hand on the ladder at all times when climbing up or down.

Driving/Vehicle Safety

Fueling Vehicles

1. Turn the vehicle off before fueling.
2. Do not smoke while fueling a vehicle.
3. Wash hands with soap and water if you spill gasoline on your hands.

Driving Rules

1. Shut all doors and fasten your seat belt before moving the vehicle.
2. Obey all traffic patterns and signs at all times.
3. Maintain a three point contact using both hands and one foot or both feet and one hand when climbing into and out of vehicles.
4. Do not leave keys in an unattended vehicle.

OFFICE PERSONNEL

Office Safety

General

1. Do not place material such as boxes or trash in walkways and passageways.
2. Do not throw matches, cigarettes or other smoking materials into trash baskets.
3. Do not kick objects out of your pathway; pick them up or push them out of the way.
4. Keep floors clear of items such as paper clips, pencils, tacks or staples.
5. Straighten or remove rugs and mats that do not lie flat on the floor.
6. Mop up water around drinking fountains and drink dispensing machines.
7. Do not block your view by carrying large or bulky items; use a dolly or hand truck or get assistance from a fellow employee.
8. Store sharp objects, such as pens, pencils, letter openers or scissors in drawers or with the points down in a container.
9. Carry pencils, scissors and other sharp objects with the points down.
10. Use a ladder or step stool to retrieve or store items that are located above your head.
11. Do not run on stairs or take more than one step at a time.
12. Keep doors in hallways fully open or fully closed.
13. Use handrails when ascending or descending stairs or ramps.
14. Obey all posted safety and danger signs.

Furniture Use

1. Open one file cabinet drawer at a time.
2. Close drawers and doors immediately after use.
3. Use the handle when closing doors, drawers and files.
4. Put heavy files in the bottom drawers of file cabinets.
5. Do not tilt the chair you are sitting in on its back two legs.
6. Do not stand on furniture to reach high places.

Equipment Use

1. Do not use fans that have excessive vibration, frayed cords or missing guards.
2. Do not place floor type fans in walkways, aisles or doorways.
3. Do not connect multiple electrical devices into a single outlet.
4. Do not use extension or power cords that have the ground prong removed or broken off.
5. Do not use frayed, cut or cracked electrical cords.
6. Use a cord cover or tape the cord down when running electrical or other cords across aisles, between desks or across entrances or exits.
7. Turn the power switch of the local exhaust fans to "On" when operating the blueprint machine.
8. Do not use lighting fluid to clean drafting equipment; use soap and water.

HEAVY EQUIPMENT OPERATORS

Site Safety

1. Do not start work until barricades, barrier logs, fill or other protection have been installed to isolate the work area from local traffic.
2. Do not work outdoors during lightning storms.
3. Drink plenty of clear liquids during your breaks.

4. Take breaks in shaded areas.

General Heavy Equipment Safety

1. No passengers are permitted on heavy equipment.
2. Keep windows and windshield clean.
3. Do not use heavy equipment if its horn or backup alarm does not sound.
4. Turn off the engine before leaving heavy equipment unattended.
5. Do not jump off of or onto any heavy equipment.
6. Keep heavy equipment in gear when going down grade. Do not use neutral.
7. Display the "Slow Moving Vehicle" sign when operating heavy equipment on roads.
8. Do not operate backhoes, power shovels and other heavy equipment within two (2) feet from the edge of an excavation.

Backhoe/Power Shovel Operations

1. Do not use a bucket or other attachments for a staging or temporary platform for workers.
2. Do not operate backhoe over or across underground utilities that are marked by paint, flagged or staked.
3. Set swing brake of the bucket arm when moving the vehicle to and from the digging site.
4. Stay in the compartment during operation of the backhoe or power shovel. Do not reach in or attempt to operate controls from outside the backhoe or power shovel.

Asphalt Paving

1. Do not smoke or eat while performing asphalt paving work.
2. Do not mount or dismount paving equipment on the traffic side.
3. Always mount and dismount paver using installed walkways, steps, and handrails.
4. Do not leave loose tools, lunchboxes or other items on operator's platform.

Personal Protective Equipment

1. Wear hard hats, hearing protection and safety goggles while operating heavy equipment.
2. Do not wear hard hats that are dented or cracked.
3. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.

General Hand Tool Safety

1. Keep the blade of all cutting tools sharp.
2. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
3. Tag worn, damaged or defective tools "Out of Service" and do not use them.
4. Do not use impact tools such as hammers or chisels that have mushroomed heads.

5. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
6. When using knives, shears or other cutting tools, cut in a direction away from your body.
7. Carry all sharp tools in a sheath or holster.
8. Do not perform "make-shift" repairs to tools.
9. Do not use "cheaters" on load binders or "boomers."
10. Do not carry tools in your hand when climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line.
11. Do not throw tools from one location to another or from one employee to another.

Pneumatic Tools

1. Do not point a charged compressed air hose at bystanders or use it to clean your clothing.
2. Lock and/or tag tools "Out of Service" to prevent usage of the tool.
3. Do not use tools that have handles with burrs or cracks.
4. Do not use compressors if their belt guards are missing. Replace belt guards before using the compressor.
5. Turn the power switch of the tool to "Off" and let it come to a complete stop before leaving it unattended.
6. Disconnect the tool from the air line before making any adjustments or repairs to the tool.

Lifting Equipment

1. Do not use chain slings if links are cracked, twisted, stretched or bent.
2. Do not shorten slings by using make-shift devices such as knots or bolts.
3. Do not use a kinked chain.
4. Protect slings from the sharp edges of their loads by placing pads over the sharp edges of the items that have been loaded.
5. Wear work gloves when handling rough, sharp-edged or abrasive chains, cables, ropes or slings.
6. Do not alter or remove the safety latch on hooks. Do not use a hook that does not have a safety latch, or if the safety latch is bent.

When Lifting

1. Do not place your hands between the sling and its load when the sling is being tightened around the load.
2. Lift the load from the center of hooks, not from the point.

GENERAL LABOR PERSONNEL

Site Safety

1. Do not start work until barricades, barrier logs, fill or other protection have been installed to isolate the work area from local traffic.

2. Reflective warning vests must be worn by traffic flagmen who are assigned to controlling traffic.
3. Do not approach any heavy equipment until the operator has seen you and has signaled to you that it is safe to approach.
4. Walk around or step over holes, rocks, roots, materials or equipment in your pathway.
5. Do not work outdoors during lightning storms.
6. Drink plenty of clear liquids during your breaks.
7. Take breaks in shaded areas.

Knives/Sharp Instruments

1. Use knives for the operation for which they are made.
2. Do not use knives that have broken or loose handles.
3. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
4. When handling knife blades and other cutting tools, direct sharp points and edges away from you.
5. Cut in the direction away from your body when using knives.

Hand Tool Safety

General

1. Keep the blade of all cutting tools sharp.
2. Do not carry sharp or pointed hand tools such as screwdrivers, scribes, chisels or files in your pocket unless the tool or pocket is sheathed.
3. Tag worn, damaged or defective tools "Out of Service" and do not use them.
4. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
5. Do not use impact tools such as hammers, steel stakes, or chisels that have mushroomed heads.
6. Do not perform "make-shift" repairs to tools.
7. Do not throw tools from one location to another or from one employee to another.
8. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Hammers

1. Do not use a hammer if your hands are oily, greasy or wet.
2. Do not strike objects with the cheek of the hammer.
3. Do not strike one hammer against another hammer.

Pliers

1. Do not attempt to force pliers by using a hammer on them.
2. Do not use pliers that are cracked, broken or sprung.

Saws

1. Keep control of saws by releasing downward pressure at the end of the stroke.
2. Do not use a saw that has dull saw blades.
3. Oil saw blades after each use.
4. Keep hands and fingers away from the saw blade while you are using the saw.
5. Do not carry a saw by the blade.
6. When using a hand saw, hold the workpiece firmly against the worktable.

Electrical Powered Tools

1. Do not use power equipment or tools on which you have not been trained.
2. Keep power cords away from path of power saws.
3. Do not use cords that have splices, exposed wires or cracked or frayed ends.
4. Do not carry plugged in equipment or tools with your finger on the switch.
5. Do not carry equipment or tools by the cord.
6. Turn the tool off before plugging or unplugging it.
7. Do not leave tools that are "On" unattended.
8. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors or wet ground.
9. Do not use extension cords or other grounded three pronged power cords that have the ground prong removed or broken off.
10. Do not use an adapter that eliminates the ground such as a cheater plug.
11. Do not drive over, drag, step on or place objects on a cord.

General Power Saw Safety

1. Wear the prescribed personal protective equipment such as goggles, gloves, dust masks and hearing protection when operating the power saw.
2. Do not use a power saw that has cracked, broken, or loose guards or other visible damage.
3. Turn off the saw before making measurements, adjustments or repairs.
4. Keep your hands away from the exposed blade.
5. Operate the saw at full cutting speed with a sharp blade to prevent kickbacks.
6. If the saw becomes jammed, turn the power switch of the saw to "OFF" before pulling out the incomplete cut.
7. Do not alter the anti-kickback device or blade guard.
8. When using the power saw, do not reach across the cutting operation.
9. When using the power saw, do not hold the workpiece against your body when making the cut.

Pneumatic Tools/Compressed Air

1. Do not point a compressed air hose at bystanders or use it to clean your clothing.
2. Do not use pneumatic tools that have handles with burrs or cracks.

3. Lock and/or tag tools "Out of Service" to prevent usage of the tool.
4. Do not use compressors if their belt guards are missing. Replace the belt guards before using the compressor.
5. Turn the power switch of the tool to "Off" and let it come to a complete stop before leaving it unattended.
6. Disconnect the tool from the air line before making any adjustments or repairs to the tool.

Personal Protective Equipment

1. Do not wear hard hats that are dented or cracked.
2. Do not continue to work if your safety glasses become fogged. Stop work and clean the glasses until the lenses are clear and defogged.
3. Wear your earplugs or earmuffs in areas posted "Hearing Protection Required."
4. Wear heavy leather-faced work gloves when handling wire-mesh.

Hazardous Materials

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you will be using in your workplace.
3. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.
4. Each time you use your gloves, wash them, before removing the gloves, using cold tap water and normal hand washing motion. Always wash your hands after removing the gloves.
5. Do not use chemicals from unlabeled containers or unmarked cylinders.
6. Always use chemical goggles and a face shield before handling chemicals labeled "Corrosive" or "Caustic."
7. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."
8. Do not smoke while handling chemicals labeled "Flammable".

Asphalt Paving

1. Do not smoke or eat while performing asphalt-paving work.
2. Stand clear of hot asphalt when it is being dumped out of the truck.
3. Do not remove paving material from the hopper or auger trough while the paving machine is operating.
4. Signal the paver operator to stop the paver before removing roadway spillage from alongside or in front of the paver.

Vehicle/Trailer Safety

1. Set the parking brake in the towing vehicle and use wheel blocks to chock the wheels of the trailer before removing any equipment from the trailer.

2. Secure equipment to the vehicle with chains or straps to eliminate or minimize shifting of the load.
3. No one is permitted to ride in the trailer.
4. Take slow, wide turns when towing trailers containing equipment or materials.
5. Do not exceed the load capacity as posted on the trailer door of the trailer.
6. Do not place all the heavy equipment on one side of the trailer.

FINISHING PERSONNEL

Site Safety

1. Do not start work until barricades, barrier logs, fill or other protection have been installed to isolate the work area from local traffic.
2. Reflective warning vests must be worn by traffic flagmen who are assigned to controlling traffic.
3. Do not approach any heavy equipment until the operator has seen you and has signaled to you that it is safe to approach.
4. Walk around or step over holes, rocks, roots, in your pathway.
5. Do not work outdoors during lightning storms.
6. Drink plenty of clear liquids during your breaks.
7. Take breaks in shaded areas.
8. Wash your skin immediately with soap and water if you come in contact with wet concrete.

Knives/Sharp Instruments

1. Use knives for the operation for which they are made.
2. Do not use knives that have broken or loose handles.
3. Do not use knives as screwdrivers, pry bars, can openers or ice picks.
4. When handling knife blades and other cutting tools, direct sharp points and edges away from you.
5. Cut in the direction away from your body when using knives.

Hand Tool Safety

1. Keep the blade of all cutting tools sharp.
2. Tag worn, damaged or defective tools "Out of Service" and do not use them.
3. Do not use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose.
4. When handing a tool to another person, direct sharp points and cutting edges away from yourself and the other person.
5. When using knives, shears or other cutting tools, cut in a direction away from your body.
6. Do not perform "make-shift" repairs to tools.
7. Do not throw tools from one location to another or from one employee to another.
8. Transport hand tools only in toolboxes or tool belts. Do not carry tools in your clothing.

Hammers

1. Do not use a hammer if your hands are oily, greasy or wet.
2. Do not strike nails or other objects with the "cheek" of the hammer.

Electrical Powered Tools

1. Do not use power equipment or tools on which you have not been trained.
2. Disconnect the tool from the outlet by pulling on the plug, not the cord.
3. Do not leave tools that are "On" unattended.
4. Do not handle or operate electrical tools when your hands are wet or when you are standing on wet floors.

COMPRESSED GAS & COMPRESSED AIR EQUIPMENT

1. Each employer must determine that all compressed gas cylinders under his/her control are in a safe condition to the extent that this can be determined by visual and other standard inspection methods. General guides for inspecting cylinders are as follows:
2. The person inspecting should be experienced.
3. Cylinders must be checked for corrosion, general distortion, gouges, broken welds, excessive heat exposure, dents, pitting, cuts, warps or other signs which indicate possible failure.
4. All compressed gas tanks must have pressure relief devices installed and properly maintained.
5. Care must be taken to avoid damage to relief devices, and they must be examined periodically for damage.
6. Every air tank shall be equipped with an indicating pressure gauge, readily visible, with spring loaded safety valves that will prevent the pressure in the tank from exceeding the maximum allowable working pressure by more than 10%.
7. All safety valves must be tested often enough to ensure their proper operating condition.

CONCRETE, CONCRETE FORMS AND SHORING

Employees tying and placing steel in walls, columns, etc. must have safety belts and lifelines. No employee may work above a vertically placed reinforcing rod unless it is protected to eliminate the hazard of impalement.

Wire mesh rolls must be secured at each end to prevent recoiling.

Powered trowels must have pressure switches that shut off when hand pressure is removed.

Riding of concrete buckets for any purpose is prohibited. All employees must be kept out from under suspended buckets.

No shoring, bracing or equipment may have greater loads or stresses than the manufacturer recommended loads.

Drawings and plans showing the jack layout, formwork, shoring, working decks and scaffolding must be available at the job site.

All protruding nails and ties shall be removed that are not necessary for later work.

Bull float handles are to be the nonconductive type when working near electrical hazards.

CRANES, DERRICKS, HOISTS, ELEVATORS AND CONVEYORS

The manufacturers name and recommendations for use must be posted or attached to the equipment.

Rules of operation of all powered equipment must be posted at the operators' station.

All limit controls and safety provisions must be operable.

Wire rope must be taken out of service when any of the following occur:

in running ropes, 6 randomly distributed broken wires in one lay or 3 broken wires in one strand or one lay;

wear of one-third the original diameter or outside individual wires;

kinking, crushing, bird caging, heat damage, or any other damage resulting in distortion of the rope structure;

reduction in the nominal rope diameter beyond limits specified in the standards;

in standing ropes, more than two broken wires in one lay in sections beyond end connections, or more than one broken wire at an end connection.

All belts, gears, shafts, etc. must be guarded if exposed to employee contact.

All exhaust pipes must be guarded or insulated where exposed to employee contact.

No equipment may be altered in a way to reduce the original safety factor. All changes must be clearly posted.

All equipment must be inspected by a competent person prior to each use.

A thorough, annual inspection of hoisting machinery must be made by an authorized person and a written record kept available for inspection.

Personnel hoists must have this inspection every 3 months and bridge personnel hoists on a weekly basis.

No crane or boom may operate within 10' of a 50 kV. or less live power line. The distance decreases as the voltage increases.

Minimum clearance between lines rated over 50 kV. and any part of the crane or load is 10 feet plus .4 inch for each 1 kV over 50 kV, or twice the length of the line insulator (but never less than 10 feet).

The equipment clearance in transit with no load and boom lowered is a minimum of 4 feet for voltages less than 50 k.V., and 10 feet for voltages over 50 k.V., up to and including 345 kV, and 16 feet for voltages up to and including 750 kV.

A person shall be designated to observe clearance of the equipment and give timely for all operations where it is difficult for the operator to maintain the desired clearance by visual means.

All hoists and lifts must have proper warning devices as specified.

All load capacities must be posted on all hoists, and all loads must be within the limits.

ELECTRICAL

All electrical work shall be in accord with the National Fire Protection Association standard, National Electric Code, National Bureau of Standards unless specifically exempted. Some of the more generally encountered areas of job site use have the following provisions:

It is the responsibility of the employer to determine before operations start if there is any energized electrical circuit with which the employees may come in contact and to provide protection and warning against all hazards.

All circuits and equipment must be clearly identified. Circuits under repair or de-energized must be tagged at all points where they may be energized.

All non-current carrying parts of electrical equipment must be grounded or have an approved double-insulation system.

Grounding circuits must have enough capacity to carry all currents liable to be imposed on it. The resistance to ground must not exceed 25 ohms. Circuits must be checked to insure that the circuit

between the ground and the grounded power conductor has sufficient flow to blow the fuse or trip the circuit breaker.

Extension cords must be the 3 wire type, shall be protected from damage, and shall not be fastened with staples, hung from nails, or suspended with wires.

Worn or frayed cords shall not be used.

Any necessary open wiring must be made inaccessible to unauthorized people.

Lighting on barricades, fences or sidewalk coverings shall be encased in a metal raceway.

Temporary lighting must have guards to prevent accidental contact with the bulb except where the bulb is deeply recessed in the reflector.

Temporary lights shall not be suspended by the cord unless the fixture was specifically designed that way, as with trouble lights.

Splices shall have insulation equal to the cable.

Brass shell or paper lined lamp holders shall not be used.

Attachment plugs shall have a cord grip so that there is no strain on the terminal screws.

Flexible cord shall be used only in continuous lengths without splice, except that soldered splices with vulcanized or molded insulation may be used.

Receptacles for attachment plugs shall be of the approved, concealed contact type. Where different voltages, frequencies, or types of current are supplied, receptacles shall be of such design that attachment plugs are not interchangeable.

Each disconnecting means for motors and appliances and each service feeder or branch circuit at the point where it originates shall be legibly marked to indicate its purpose, unless located and arranged so the purpose is evident.

EXCAVATIONS

Before excavating, utilities shall be contacted to determine location of underground services.

Daily inspections of excavations and trenches must be made by a **"competent person"** to check the condition of the ground. A **competent person** is one who is capable of identifying existing and

predictable hazards in the surroundings, or working conditions which are hazardous to employees, and who has authorization to take prompt corrective measures to eliminate them.

The walls and faces of all excavations and trenches more than five feet in depth where employees are exposed to moving ground shall be guarded shored or sloped.

No employee will enter an unshored or unsloped trench or excavation, nor will the employee enter any trench or excavation without someone present on the surface.

Spoil material shall be placed two feet or more from the edge of the excavation.

While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.

No employee shall be permitted underneath loads handled by lifting or digging equipment.

Ladders or steps shall be provided in trenches four feet or more in depth and so located to require no more than twenty-five feet of lateral travel. Ladders shall extend at least three feet above the top of the slope.

Machinery traveling parallel to the trench shall be kept as far away as possible from the edge, including loaders.

When mobile equipment is operated adjacent to an excavation and the operator does not have a clear view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs.

When loaders are used near open trenches the load should be carried and dumped as low to the ground as possible.

Be aware of warning signs which may appear prior to cave-ins:

Ground cracks running parallel to the trench

Soil bulging from the sides or bottom of the trench

Water flowing from seams in the trench

Excavating parallel to existing utilities or predisturbed soils.

Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of scaling to

remove loose material, installation of protective barricades; or other means that provide equivalent protection.

Adequate barrier physical protection shall be provided at all remotely located excavations. All wells, pits, shafts, etc. shall be barricaded or covered.

Employees shall not work in excavations in which there is accumulated water, or in which water is accumulating, unless adequate precautions have been taken.

Precautions necessary to protect employees from accumulating water include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline.

Water removal equipment and operations shall be monitored by a competent person.

Excavations subject to runoff from heavy rains will require an inspection by a competent person.

Soil and rock deposits shall be classified according to 29 CFR 1926 Subpart P Appendix A - Soil Classification.

FIRE PREVENTION

- Electrical wiring, both temporary and permanent must be in accord with the standards. (See electrical section).
- Smoking must be prohibited in areas which are a fire hazard. Proper signs must be conspicuously posted.
- Engine exhausts must be well away from combustible materials.
- No temporary building may inhibit or block any exit.
- Driveways shall be spaced so that a grid system of no more than 50 feet x 150 feet is maintained.
- Weeds and grass shall be kept down on open lot storage. Periodic cleanups shall be provided.
- Combustible scrap and debris must be removed at regular intervals during the course of construction.
- Containers must be provided for the collection and separation of waste, trash, oily and used rags.
- Containers used for: garbage, oily rags, flammable materials, caustic materials, must be equipped with covers. Garbage and other waste must be disposed of at frequent and regular intervals
- Approved metal safety cans shall be used for handling or storage of flammable liquids in quantities greater than one gallon (original shipping containers can be used for liquid materials which are extremely hard to pour).

- The original container or approved metal safety cans shall be used for storage, use, and handling of flammable liquids in quantities of one gallon or less.
- Indoor Storage of flammable and combustible liquids:
 - No more than 25 gallons shall be stored in a room outside of a storage cabinet.
 - Quantities in excess of 25 gallons will be stored in an approved cabinet.
 - No more than 60 gallons of flammable or 120 gallons of combustible liquids will be stored in any one storage cabinet.
- Materials which will react with water and create a fire hazard will not be stored in the same room.

Portable tanks:

- Portable tanks will be at least 20 feet away from any building.
- Two or more portable tanks, grouped together, having a combined capacity in excess of 2,200 gallons, will be separated by a 5 foot clearance area.
- Individual portable tanks exceeding 1,100 gallons will be separated by a 5 foot clear area.
- There will be a 12 foot wide access way within 200 feet of each portable tank.
- Outdoor Storage of flammable and combustible liquids:
 - Combustible materials must be piled in stable piles, never over 20' high.
 - Piles of containers will be separated by a 5 foot clearance.
 - Storage of containers (not more than 60 gallons each) will not exceed 1,100 gallons in any one pile or area.
 - The distance between buildings and piles of containers will be at least 20 feet.
 - There will be a 12 foot wide access way within 200 feet of each pile of containers.
 - Driveways between and around combustible storage piles must be at least 15 feet wide. They must always be free of rubbish, equipment or any obstruction.
- **Manholes will** have standard covers or standard railings.
- **Temporary openings** shall have standard railings.
- **Floor holes** shall have standard railings and standard toe boards on all exposed sides or floor hole cover.
- Wall an opening from which there is a drop of more than 4 feet, and the bottom of the opening is less than 3 feet above the working surface will be guarded with a standard rail or intermediate rail if it would effectively reduce the danger of falling. The bottom of a wall opening less than 4 inches above the working surface will be protected by a standard toe board.

- Floor Opening Covers and Wall Opening Protection: Covers shall be designed to carry a load of at least 2 times the maximum intent.
- The floor opening cover will be installed to prevent accidental displacement.
- Barriers shall be capable of withstanding a load of at least 200 pounds applied in any direction (except upward)
- Screens will be capable of withstanding at least 200 pounds applied horizontally.

HAND AND POWER TOOLS

- All hand and power tools must be maintained in a safe condition.
- Wooden handles shall be tight and free from cracks or splinters.
- Impact tools must not have mushroomed heads.
- Power tools must have the proper guards attached, and they must be used as intended.
- Electric hand tools:
 - Must have double insulated frames or have the frames grounded
 - Must have a constant pressure switch, and
 - Must not be raised or lowered by the cord.
- All electrical connections must have all prongs intact, with cords in good condition.
- All moving parts of machinery must be guarded if the parts are exposed to contact by the operator.
- Personal protective equipment must be worn by operators if there is a danger of falling, flying, abrasive or splashing objects, or harmful dusts, fumes, mists, vapors or gasses.
- Pneumatic tools must have positive locks on hoses and attachments.
- Nailers, staplers and similar other air driven equipment must have a device to prevent operations unless in contact with the surface if the air pressure is over 100 p.s.i.
- Compressed air must not be used for cleaning if the pressure is over 30 p.s.i.
- Air hoses shall not be used to raise or lower tools.
- Powder-actuated tools must be operated only by trained personnel wearing protective equipment.
- All abrasive wheels and tools shall have safety guards attached in accord with the standards.
- All equipment which produces dusts, fumes, mists, vapors, or gasses in concentrations that are harmful upon exposure to employees must have appropriate exhaust ventilation.

HOUSEKEEPING

- During the course of construction, form and scrap lumber with protruding nails, and all other debris shall be kept cleared from work areas and passageways in and around buildings or other structures.
- Combustible scrap shall be removed at regular intervals.

- Containers shall be provided for the collection and separation of waste, trash, oily and used rags and other refuse.
- Containers used for garbage and oily, flammable or hazardous wastes must have covers.
- Materials shall not be stored on scaffolds or runways in excess of immediate needs.
- Material stored inside a building under construction shall not be within 6 feet of hoist ways or within 10 feet of outside wall which is lower than top of material stored.
- Maximum safe load limits of floors within buildings and structures in pounds per square foot must be conspicuously posted in all storage areas.
- Non-compatible materials shall be segregated in storage.
- Used lumber shall have all nails withdrawn before stacking.
- When bricks and blocks are stacked, the brick shall be tapered higher than 4 feet and the blocks higher than 6 feet.
- All piles of materials must be stable with proper supports.
- Whenever materials are dropped to any point outside the building, an enclosed chute must be used.
- When debris is dropped thru floor holes, warning signs must be posted at each level. 42 inch barricades at least 6 feet back from each opening must be maintained on each floor.
- Spills must be cleaned up immediately. Spills which contain hazardous materials shall be contained by use of a berm, or placed on plastic. Notify your supervisor immediately of a hazardous material spill.

LADDERS

- The use of ladders with broken or missing rungs or steps, broken or split side rails, or with other faulty or defective construction is prohibited. When ladders with such defects are discovered, they shall immediately be withdrawn from services.
- Straight ladders are to be placed so that the distance of the base of the ladder from the object which the ladder is leaning does not exceed 1/4 the length of the ladder.
- Ladders are to have clear access at top and bottom, extend a minimum of 36 inches above the landing, and be secured against movement while in use.
- Portable metal ladders shall not be used for electrical work or where they may contact electrical conductors.
- Job-made ladders shall be constructed for their intended use. Cleats shall be inset into side rails 1/2", or filler blocks used. Cleats shall be uniformly spaced, 12 inches, top-to-top.
- Face ladder when climbing and use both hands. Hand line or material hoists are to be used to lift loads.
- The platform of a stepladder is not to be used as a step to stand on.

MOTOR VEHICLES AND MECHANIZED EQUIPMENT

- All motor vehicle or property damage must be reported to the Safety Representative regardless of the cost involved. Except in the case of an emergency or a situation creating a hazard

because of location, vehicles or other equipment involved in accidents will not be moved before representatives from the Police Department arrive at the scene.

- The following rules relate to motor vehicles and mechanized equipment:
- Only qualified persons shall operate service vehicles and machinery.
- No employee other than the operator will ride on any truck, loaders, shovels, cranes, or other moving equipment unless seating is provided by the manufacturer.
- A complete walk around inspection is required before each restarting of equipment. The following is a list of items to be checked:
 - service brakes, including trailer brake connections
 - tires
 - emergency stopping system
 - horn
 - steering mechanism
 - coupling devices
 - seat belts
 - operating controls
 - safety devices
- Any defects found during inspection shall be corrected before the vehicle is used.
- Use hand holds, steps, ladders, or whatever aids are provided for getting on or off the machine and for reaching service and inspection areas.
- Machinery and vehicles shall be operated within rated capacities and safe speeds.
- Keep equipment clear of overhead power lines. If it is necessary to work in vicinity of overhead lines, approval must be given by the Site Manager on the job.
- Operators must maintain at least 10 feet between any piece of equipment and electrical lines.
- When equipped with a seat belt, it shall be worn prior to starting equipment, including machines that have rollover protection.
- All bi-directional machines are to have a back-up alarm or horn distinguishable from surrounding noise.
- All equipment must be turned off and locked out prior to performing any work on it. Keys must be removed when leaving the machine for any period of time.
- Employees operating company vehicles must hold a valid operator's license.
- Motors on equipment and vehicles must be stopped and smoking is prohibited when refueling.
- Equipment is to be equipped with a slow moving vehicle sign when operating on streets, roads and highways, unless properly equipped for road travel.
- Do not leave equipment unattended at night next to a highway or active. Construction area must have lights or reflectors to identify the location of the equipment.
- A safety tire rack, cage or equivalent must be used in repairing tires with split rims.
- Heavy machinery or parts which are suspended or held aloft must be cribbed or blocked before employees may work under or around them. All blades, buckets or beds shall be fully lowered or blocked when not in use or are being repaired.
- Parked equipment shall be chocked and parking brakes set.
- All motor vehicles shall have

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- a service brake system
 - an emergency brake system
 - a parking brake system
 - audible back up warning device
 - seat belts.
- All haulage vehicles loaded with cranes, shovels, etc. must have a cab shield and/or canopy.
- Tools and equipment must be secured when transported in employee compartment.
- No modifications which affect the capacity of safe operation of equipment shall be made.

PERSONAL PROTECTION

Where hazards exist that cannot be eliminated by engineering or a change in process, personal protective devices must be used. All personal protection equipment must be inspected before use. Don't use damaged equipment.

The general areas are as follows:

Head Protection

Hard hats shall be worn by all personnel and visitors at all times on all jobsites.

Eye and face protection

Protective eye and face equipment must be used where there is a reasonable probability that injury can be prevented by the use of such equipment. If conditions require such protection, the employer shall make conveniently available suitable equipment and the employee shall use it. No unprotected person shall knowingly be subjected to a hazardous environmental condition.

Gases, vapors, fumes, dusts, mists

Exposure of employees to harmful material or substances above the concentration limits or specified exposure durations must be avoided by engineering controls or the use of protective equipment. The BC&E Corp., Respiratory Protection Program will be followed when conditions warrant the use of a respirator.

Hearing protection

When it is not feasible to reduce the noise levels or duration of exposure below permissible noise exposures, authorized ear protective devices must be provided and used (Ear protectors or muffs). Cotton shall not be used as ear plugs. If you must raise your voice to be heard, you need hearing protection.

Protective clothing

- Gloves with leather palms shall be worn when handling rough edge or abrasive material when the work subjects hands to lacerations, puncturing or burns. Other hand protection may be designated by the Site Managers or Trades Group Leaders.

- Anti-vibration work gloves shall be worn while operating air powered hammers
- Orange work vests are to be worn when performing work adjacent to, or in traffic.
- Where the danger of drowning exists, U.S. Coast Guard approved life jackets are to be worn. Ring buoys with a minimum of 90 feet of line are to be made available with lifesaving skiff.
- Shoes that are work wise and in serviceable condition for the operation to which the employee is assigned are required. Check with the Site Manager or Trades Group Leaders as to the proper foot protection required for the assigned work. Tennis shoes are not allowed.

WELDING & CUTTING

- Compressed gas cylinders:
- Valve protection caps shall be in place when compressed gas cylinders are transported, moved, or stored.
- Cylinder valves shall be closed when work is finished and when cylinders are empty or are moved.
- Compressed gas cylinders shall be secured in an upright position at all times, except when cylinders are actually being hoisted or carried.
- Cylinders shall be kept at a safe distance or shielded from welding or cutting operations. Cylinders shall not be placed where they can contact an electrical circuit.
- Oxygen and fuel gas regulators shall be in proper working order.
- All employees who use fuel gas must be thoroughly instructed in its proper use.
- Use a friction lighter to light a torch. No other means is acceptable.
- Never use oxygen as a substitute for compressed air, as a source of pressure, or for ventilation.
- Do not force connections that do not fit. Checks thread directions before connecting.
- Screens shall be used whenever possible during welding operations, to protect nearby workers.
- A fire extinguisher shall be located in the immediate area of cutting and welding operations.
- Valve protection caps are to be in place and the gas cylinder secured in an upright position during storage, whether full or empty.
- Before starting welding or cutting operations, remove or shield nearby combustibles.
- Oxygen, acetylene, propane, argon, etc. are to be stored 20 feet from each other or a fire wall rated 1/2 hour shall be constructed between the tanks.
- Gas cylinders and hoses are not to be exposed to open flames, hot metal or other sources of artificial heat.
- Clogged torch tip opening shall be cleaned with suitable cleaning wires, drills or other devices designed for such purpose.
- Cylinders, cylinder caps and valves, coupling, regulators, hoses and apparatus are to be kept free of oil and grease.
- Valves are to be turned off when tanks are not in use.
- Welding cable or gauges in need of repair shall not be used.
- Outer clothing containing more than 35% synthetic fibers should not be worn by persons exposed to spark or flame.
- A backflow preventer is to be installed in the hose immediately after the gauge assembly, unless built into the assembly by the manufacturer.



REGULATORY AND SHE PROGRAM COMPLIANCE

All work performed on the NTDP Protect sites will be in conformance with all local, state, and federal regulations. These regulations include but shall not be limited to State Health Department, State and Federal Environmental Protection, and Occupational Health and Safety Administration. Any person who knowingly violates the regulations of any of these agencies having jurisdiction of the site, work place or the work will be removed immediately from the project.

By reference the applicable regulations of each of the local, state and federal agencies that have jurisdiction over the project are made a part of the SHE program. In instances where site policy exceeds a government regulation, the site policy will receive the same attention as the governmental regulations.

DISCIPLINE

Compliance with the provisions of the SHE Program is a condition of employment at each construction project. BC&E has a written disciplinary program with clearly defined infractions and consequences.

The best safety program, best policy, and greatest commitment are ineffective without enforcement and discipline. Violations will be dealt with firmly, fairly, and in a consistent manner. No supervisor or employee will be above reproach - everyone will follow the rules. If an employee does not follow work rules, they are disciplined. Not wearing a hardhat for example, is just as much a violation of company policy as not following work orders. Safety violations must therefore be dealt with in the same way as failure to follow a work order.

Site Managers and Trades Group Leaders have enforcement responsibility for safety violations. The BC&E Corp., Progressive Disciplinary Procedure is to be followed. The Safety Representative is ultimately responsible for checking to see that the enforcement procedures are being followed in the field.

BC&E employees and subcontractors are responsible for following the established rules for safety and conduct set forth in this Safety, Health & Environmental Program manual. Subcontractors who fail to work safely or fail to follow the safety rules shall be subject to contractual damages including removal from the project.

BC&E expect that each and every contractor will require its employees to follow their own safety rules, to follow the safety practices outlined in the SHE program, and to abide by OSHA regulations. On the construction site, it is further expected that individuals who are observed working unsafely will be informed immediately of the unsafe work practice. If additional training is necessary, it is expected that each and every contractor will provide the training required for its employees to work safely. In the event an employee has been trained to work safely and yet the employee continues

unsafe work practices, it is expected that the contractor/employer will discipline the employee appropriately. In the event, BC&E observes any individual working in an unsafe manner, it reserves the right to remove the individual from the work site. To ensure that individuals at the site are working safely, BC&E has implemented the following reporting system.

Reporting System/ Citations

The primary document to report continued unsafe work practices is the Citation. An example is attached . BC&E will have copies of the citation available for use by contractors.

A copy of each citation shall be forwarded to BC&E's Corporate Office.
A copy of each citation shall also be kept at the job site.

Who May Issue Citations

Superintendent; Safety, Health and Environmental Manager or their staff members may issue a citation to any employee working at the project site.

BC&E Project Manager; Superintendent; Safety, Health and Environmental Manager or team staff members may issue a citation to any employee and subs working at the project site. In no case will any contractor issue citations to an employee of another contractor.

Contractors

Contractors are responsible for performing their work in a safe and healthful manner in accordance with the site SHE program and OSHA standards. Those who do not are subject to removal from the project for repeated safety violations (see Attachments 1, 2, and 3).

Removal from Site

Except in cases of flagrant unsafe behavior, a "Removal Warning" letter will precede removal from the site. This letter will be sent from BC&E SHE Manager to the employer of the unsafe individual. A copy, signed by the subcontractor's Project Manager or Superintendent, must be resumed within 24 hours to BC&E's SHE Manager.

Safety, Health Environmental Personnel

SHE personnel are responsible for monitoring the implementation of this section of the SHE Program. Whenever Safety Officer, Health and Environmental personnel visit a work area, they will review copies of any citations kept on file at the work area as part of the routine review process.

Failure to implement this section of the SHE Program will be noted and reported as any other non-compliance items in site review report



Corporate Safety Program

Safety, Health and Environmental Manual

ELEMENT 12

Safety Rules and Procedures



Corporate Safety Program

Safety, Health and Environmental Manual

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Safety Rules and Procedures

SAFETY INFRACTION CITATION

DATE:	JOB #:	
NAME:		
COMPANY:		
DESCRIPTION OF INFRACTION:		
CLASSIFICATION:	Minor	Significant
	Serious	Flagrant
Issuing Authority		
Employee's Signature		

DEFINITIONS

MINOR INFRACTION—Relatively minor exposure to individual cited, without injury potential to others.

SIGNIFICANT INFRACTION—Exposure to individual cited which involves potential injury exposure to others.

SERIOUS INFRACTION—Safety violation that in the opinion of the issuing supervisor could result in serious injury or death to the individual cited and/or to other persons.

FLAGRANT INFRACTION—Willful or extremely careless exposure of the individual cited, and/or others, to potentially catastrophic injuries or death.

Guide to Removal from the Site

	Severity of Infraction			
	Minor	Significant	Serious	Flagrant
Definition	Relatively inconsequential exposure of self to minor injury or hazard	Consequential exposure of self and/or others to injury hazard	High level of exposure of self and/or others to injury hazard.	Willful or extremely careless exposure of self and/or others to potentially catastrophic hazard
Example	Not wearing hard hat	Horseplay	Not tying off	Drunk on job
First Offense	Verbal Warning	Verbal Warning	Write-up	Removal
Second Offense	Verbal Warning	Write-up	Removal	
Third Offense	Write-up	Removal		
Fourth Offense	Removal			

NOTES:



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1. Citations will be recognized only for a period of one year from the date of the latest citation.
2. The severity of the infraction is based upon the judgment of BC&E's management and supervision and may not exactly follow the above guidelines or any other predetermined industry standards.



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Safety Rules and Procedures

Removal Warning

To: Contractor or Specialty Contractor

BC&E is providing you with this warning that your employee identified below will be removed from the construction site if the employee is identified working in an unsafe manner and/or in violation of this project's safety rules.

NAME:	
DEPARTMENT:	
DATE:	
REMARKS: (Set forth all facts in detail)	
BC&E's Team Member/ Title	
I have read this report:	
	Signature of Contractor

RESTRICTION OF ACTIVITIES

Specific areas will be identified within each construction project site for employees to eat lunch and take breaks. Food and drinks (other than water) will not be allowed at any other part of the construction site.

All trash and other debris shall be deposited in trashcans provided for in the designated areas. Employees who fail to use the designated areas for food and drinks, or who do not pick up and dispose of their trash will be subject to disciplinary actions by way of being issued a safety Violation.

The first offense will be considered minor. Repeated offenses can lead to removal from the site. Each construction project site will be designated as a "No Smoking" area except in areas identified as "Designated Smoking Areas". Any employee who breaks this rule will be subject to disciplinary action up to and including removal from the site.

EXPLOSIVE AND FIREARMS

Possession of any explosive or potentially explosive materials is expressly prohibited. Any Prime or subcontractor employee found with explosives (not required by their work) in their possession will be permanently removed from the project site.

The possession of firearms within proximity to or on the construction project site is expressly prohibited. Any employees found in possession of a firearm on the construction project site will be permanently removed from the project site.

ENVIRONMENTAL

HAZARDOUS MATERIAL AND RECYCLING MANAGEMENT

Hazardous Materials

1. Follow the instructions on the label and in the corresponding Material Safety Data Sheet (MSDS) for each chemical product you will be using in your workplace.
2. Do not use protective clothing or equipment that has split seams, pinholes, cuts, tears, or other visible signs of damage.

3. Each time you use your gloves, wash them, before removing the gloves, using cold tap water and normal hand washing motion. Always wash your hands after removing the gloves.
4. Do not use chemicals from unlabeled containers or unmarked cylinders.
5. Always use chemical goggles and a face shield before handling chemicals labeled "Corrosive" or "Caustic."
6. Do not store chemical containers labeled "Oxidizer" with containers labeled "Corrosive" or "Caustic."
7. Do not smoke while handling chemicals labeled "Flammable".

Storm Water Pollution Prevention Permit

OWNER will obtain the Storm Water Pollution Prevention Permit through the general permitting process. Each prime contractor, and individual shall execute the requirements of their work in strict accordance with the provisions of the permit and the plan developed. Anyone who needs information regarding the permit or the plan should contact the Project Manager.

Additionally each prime contractor or subcontractor who will contribute to the storm water run-off will be required to execute an agreement to abide by the permit requirements and maintain all preventive measures.

Procurement

During the bidding and procurement phase of the project, each individual and firm responsible for the purchase of materials shall research the products available and recommend those that have the least possibility of causing personal injury or environmental impact on the project site.

During the submittal process all materials that have possibility of causing either personal injury or environmental impact shall be reviewed by the Project Manager to verify the following:

1. Material Safety Data Sheets must be included the submittal.
2. Handling and storage instructions are clear and meet the methods and areas available.
3. Least impact materials have been selected and submitted.
4. Quantity required and schedule for delivery has been established.

Delivery

Each contractor and subcontractor shall submit the following to the Project Manager at least 10 days prior to delivery of any hazardous materials c chemicals to the project.

List of all hazardous materials or chemicals to be used on the project.

Total quantity required for completion of the project.

Scheduled delivery dates for each material or chemical.

Material Safety Data Sheets for each material chemical.

Special storage and handling instructions for each material or chemical

All hazardous materials and chemicals shall by delivered in quantities to sustain field operations for no more than one week, unless specifically approved in advance by the Construction Manager.

Storage

The Site Manager will designate a hazardous material and chemical storage area at the project site. This area will be separated for flammable and non-flammable materials or chemicals. Additional segregation for materials or chemicals that might react to each other will be provided as necessary.

Each contractor and subcontractor will be response for unloading, placing in storage, and retrieval from storage any materials or chemicals that they have had delivered to the project. In addition, each contract and subcontractor will be responsible for the removal and recycling (where possible) of all empty containers, and unused materials.

Handling and Use

Handling of all hazardous materials and chemicals will be done in strict accordance with the manufacturer's instructions. Each contractor and subcontractor shall keep the storage space and handling methods in mind when ordering materials for delivery.

Manual handling of bulk materials will not be allowed if mechanical means are available and meet the requirements of the manufacturer and space restriction of the site.

All materials shall be used and/or applied as recommended by the manufacturer. All required personal protective equipment recommended by the Material Safety Data Sheets should be made available and used by personnel involved in handling and application.

Hazardous Waste

All empty or partially empty waste material containers shall be handled, stored and disposed of in accordance with the project's Hazardous Waste Management plan. The purchasing firm will be responsible for the proper dispose of all hazardous waste in accordance with the local state and federal laws. In no case shall these materials be disposed of on the site, through the city sanitary sewer or storm sewer systems.

Recycling of Waste Materials

BC&E and subcontractors working on the project will be required to look for opportunities for recycling of all waste materials from their operations. Recycled materials shall include but not be limited to that listed below: Dirt, wood and wood products, Ferrous pipes, flashing Brick and Tile Stumps, treetops, tree limbs Steel and Brass Concrete, cinder block, rocks Plaster and sheet rock Aluminum Asphalt Glass Copper Tar-based materials, roofing Cardboard Paper and paper goods.



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OFF-THE-JOB ACCIDENT PREVENTION

An injury to an employee off-the-job causes the same suffering and disability as one at work. If an off-the-job injury is disabling, the company is deprived of the employee's service. Unsafe actions off-the-job are a reasonable indication of lack of safety awareness in general. Emphasis must be placed on making not only the employee safety conscious, but members of his family as well. This company will include substantial effort through encouragement and motivation to convince employees of the wisdom of being safe "off-the-job". Any means available to this company will be used for this purpose which may include National Safety Council material, letters from the President, safety meetings, etc.

EQUIPMENT OPERATOR POLICY

1. Purpose

The purpose of this program is to establish practices, procedures, and policy to protect employees and the company from injury and liabilities associated with operation of machines and equipment

2. Responsibility

The Safety Representative has overall responsibility for the execution of this program and will coordinate with the Site Manager its implementation.

3. Background

BC&E Corp., safety program and OSHA standards require employees who operate equipment or machinery to be “qualified by training or experience”.

A listing of employees who are documented in the office as “qualified by training or experience” to operate specific machines and/or equipment shall be generated on a monthly basis by the safety Representative and submitted to Site Managers and Trades Group Leaders;.

Employees who have been ‘certified’ that are not on this list should complete, an *Operator Certification* form and submitted it to the Safety Representative so the listing can be updated;

Employees who have not been trained by a site supervisor or his designee shall not operate equipment or machinery until the employee has been trained and can demonstrate competence with the equipment;

The Operator Certification form is a 2 part form. The top of the form indicates the employee understands of his/her responsibilities. The bottom portion of the form is the site superintendent’s certification of training and competence.

Certification is specific to the piece of machinery and cannot be transferred. For example, if an employee is certified to operate BC&E Corp., Michigan Bucket Loader, and we rent a Case 580K, a new training shall be given to the proposed operator.



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4. Operator Certification Form

IS THIS A RENTAL ITEM?

YES

NO

BC&E CORP EQUIPMENT NO. _____

DESCRIPTION _____

MODEL NO. & YEAR _____

This is to certify that I have read and understand the operating and maintenance manual for the above machine.

I hereby agree to operate the machine safely and properly and to follow all required maintenance procedures.

I further agree that the following items are grounds for immediately dismissal without recourse:

1. Unsafe operation of machine.
2. Improper operation of machine.
3. Failure to follow required maintenance procedures.

OPERATORS NAME: _____

OPERATORS SIGNATURE: _____

DATE: _____

Retain 1 copy on site in personnel file of employee. Forward original to office Attn: Safety Representative

BC&E CORP.,

OPERATOR CERTIFICATION

This is to certify that



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is qualified by training or experience to operate the machine listed below in accordance with OSHA standard 29 CFR 1926.20(a)(4)

Description of equipment:

Supervisor's signature

Date

LIFTING INJURY PREVENTION PROGRAM

1. Purpose

The purpose of this program is to establish practices and procedures to protect employees from soft tissue injuries associated with improper lifting.

2. Responsibility

The Safety Representative has overall responsibility for the execution of this program and will coordinate with the job Site Manager its implementation.

3. Training

Employees shall be properly instructed regarding proper lifting technique within 30 days of hire. This shall be coordinated between the site manager and the safety Representative.

4. Background

According to the Federal Bureau of Labor Statistics, more than 1 Million workers suffer back injuries each year, and back injuries account for one of every five workplace injuries or illnesses. More importantly, these figures do not begin to reflect the pain and suffering employees experience as a result of their injuries. BC&E Corp., recognizes that although soft-tissue injuries, particularly back injuries are painful, they are preventable. As such, it is the policy of BC&E Corp., this issue be addressed through an education program for all employees. By learning proper lifting techniques and the basics of back safety, you may be able to save yourself a lot of pain . . . and a lifetime of back problems.

OSHA INSPECTION PROCEDURES

1. Immediately Notify Safety Representative and Project Manager

a) Overview:

Under the *Occupational Safety and Health Act of 1970*, the Occupational Safety and Health Administration is authorized to conduct workplace inspections to determine whether employers are complying with standards issued by the agency for safe and healthful workplaces. Inspections are usually conducted without advance notice.

Your behavior during the inspection is very important. the following outline will provide you, the job Site Manager, with the steps that should be taken and the steps which are taken during an OSHA inspection.

b) Your Behavior

1. Be polite, respectful and cooperative.
2. Remember that you are a professional and are representing BC&E Corp.,
3. Do not resent an outsider on the job, especially a safety inspector.
4. The atmosphere shall be that of cooperation, but do not divulge information voluntarily.
5. Only answer direct questions, preferably "yes" or "no"

c) Credentials

1. The Site Manager has the right to and shall ask for the inspector's credentials before letting him inspect the job.
2. In order to gain a little time you may record the inspector's name and number and ask the inspector to wait until his or her credentials are verified. They can be verified by contacting the nearest OSHA office at (954) 424-0242.
3. Once the credentials are verified, do not delay the inspector or deliberately waste his/her time.

2. Pre-Investigation (Opening) Conference

This conference should be attended by, any sub-contractors Site Manager, any labor union representative, any employee or Trades Group Leaders that the inspector requests if applicable and the Safety Representative.

A. The purpose of this conference is:

1. To allow OSHA to explain the reasons for the inspection

2. To generally lay out the inspection steps
3. To obtain the consent of the employer to conduct the inspection
4. To clarify other general questions about the inspection

B. You may ask questions about the nature of the inspection, an inspection may result from:

1. A complaint, Site Manager has the right to obtain a copy of the complaint, but does not have the right to ask who made the complaint.
2. A request of an employee, any employee may request an inspection if he/she believes an unsafe condition exists.
3. A random inspection.
4. You should take this opportunity to provide the inspector with useful information such as what Personal protective employees must utilize on the project.
5. For the inspection to proceed beyond the office or conference room in which the opening conference was held, OSHA must have the consent of the employer. If faced with a complaint inspection, politely but firmly inform the inspector that consent is given only for the inspection of the items under complaint and that no consent is being given for the inspection of any other area beyond that complaint.

3. Inspection Process

A. The first area the inspector will review are the records and documentation this includes the following:

1. OSHA Form 200 log of injuries and illnesses (on your bulletin board)
2. The written Hazard Communication Program (MSDS book)
3. The Safety Program
4. Training records (log book)
5. Accident reports, Notice of First Injury (log book)
6. Safety meetings, MSDS reviews (log book, or employee file)

The next step is the walk-around inspection. The Site Manager or project manager must escort the inspector at all times. You must be thoroughly familiar with all safety aspects of operations and must be skilled in answering questions and explaining any and all aspects of the work to defend any ambiguous points. The Safety Representative (if available) should be arriving shortly to assist you, but you must be able to conduct yourself in a courteous and business-like manner at all times, do not lose your temper. You should always inform the inspector of the day's work schedule. Remember that OSHA does not have to wait on top management to arrive on site before the investigation begins, and that you are representing BC&E Corp., as a management spokesperson.

B. Some items to remember

1. First Aid, make sure that everyone knows who is qualified in first aid

2. Fire Prevention; make sure that everyone knows where the fire extinguishers are located
3. Hazard Communication, Make sure that everyone knows where the Chemical List, HazCom program and MSDS book is located.

C. Investigation

1. The inspector has the right to question a “reasonable number of employees” privately.

D. The investigation must be at a:

1. Reasonable time.
2. Within reasonable limits.
3. In a reasonable manner

E. Site Manager must take complete notes and records and or pictures of:

1. Areas visited
2. Machinery
3. Tests and/or samples.
4. Equipment and materials examined.
5. Employees and other persons interviewed or involved in the investigation.
6. List number of employees which are affected by area

F. Remember that OSHA must bear the burden of proving the truth of its alleged violations. Some defenses if the inspector points out a violation and you think it is unreasonable are:

1. Lack of exposure.
2. General industry acceptance.
3. Unavoidable employee misconduct.
4. Greater hazard.
5. Impossibility of compliance in this specific instance.
6. Beyond scope of work.

G. Technological infeasibility.

H. Must consult with top management.

4. Post-Investigation (Closing) Conference

A. Those present should be:

- a. Inspector.
- b. Site Manager
- c. Project Manager/ Safety Representative
- d. Employee/Union Representative (only if Site Manager invites him)
- B. **Inspector shall review conditions and practices he has investigated.**
 - a. If imminent danger persists, the Site Manager should try to immediately abate the danger.
 - b. If the item can be corrected during the inspection, **correct it.**
 - c. You should discuss the findings with the inspector to insure that if such findings are not based on actual facts or are errors you can try to correct them at this time.
 - d. The inspector **is not authorized to issue actual citations or impose monetary penalties at this time.** The Area Representative must review and approve the issuance of citations and penalties.
 - e. The inspector has no right to shut a job down without a court order.

Site Manager will make a complete report with recommendations to management on the investigation and finding

SUPPLEMENTARY WRITTEN PROGRAMS AND POLICIES

This section includes the additional policies and procedures which will assist in implementing an effective Safety Program on all BC&E Corp., projects.

BLOODBORNE PATHOGENS POLICY STATEMENT

1. Purpose

Employees incur risk each time they are exposed to blood borne pathogens. Any exposure incident may result in infection and subsequent illness. Since it is possible to become infected from a single exposure incident, exposure incidents must be prevented whenever possible.



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It is the goal of this plan to reduce a significant risk of infection by minimizing or eliminating occupational exposure to blood and other potentially infectious materials, by providing the training of employees with the potential for occupational exposure to blood borne pathogens.

All employees identified as having occupational exposure will receive training and protective equipment.

2. Responsibility

The Safety Representative has overall responsibility for the execution of this program and will coordinate with the job Site Manager its implementation.

3. Exposure Determination

JOB CLASSIFICATIONS WITH SOME EMPLOYEES EXPOSED TO BLOODBORNE PATHOGENS

Organization BC&E

NO.	JOB TITLE	GENERAL EXPOSURE DESCRIPTION
-----	--------------	------------------------------

All	Site Managers	responding to 1 st Aid or CPR emergency
-----	---------------	--

All	Trades Group Leaders	responding to 1 st Aid or CPR emergency
-----	----------------------	--

Prepared By _____ Title _____ Date _____

4. Training

Information and training is provided all employees determined to have occupational exposure at no cost to the employees and during working hours.

The required training is provided on initial assignment and at least annually thereafter.

Annual training for all employees is provided within one year of their previous training.

Additional training is provided when tasks or procedures are changed or modified and there are new tasks or procedures affecting employee exposures. The additional training provided is limited to addressing the new exposure created.

Training material appropriate in context and vocabulary to the educational level, literacy, and language of employees is used.

The training program contains the following elements:

An accessible copy of the standard and an explanation of its contents,

A general explanation of the epidemiology and symptoms of blood borne diseases,

An explanation of the modes of transmission of blood borne pathogens,

An explanation of this policy and a means the employee can obtain a copy of the plan,

An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure,

An explanation of the use and limitations of methods to prevent or reduce exposure including engineering controls, work practices, and personal protective equipment,

Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment,

An explanation of the basis for selection of personal protective equipment,

Information on the appropriate actions to take and persons to contact in an emergency,

An explanation of the procedures to follow if an exposure incident occurs, including reporting method and available medical follow-up,

Information on the post-exposure evaluation and follow-up that is provided for exposed employees,

An opportunity for interactive questions and answers with the training instructor.

The person conducting the training is knowledgeable in the subject matter covered by the elements of the training program as it relates to the workplace.

5. Post-Exposure Evaluation and Follow-Up

Post-exposure evaluations and follow-up are made immediately available to exposed employees following a reported exposure incident. All medical evaluations and follow-up are confidential.

Elements of the post-exposure evaluation and follow-up include:

Documentation of exposure route(s) and circumstances,

Identification and documentation of the source individual unless infeasible or prohibited by state or local law, including:

Testing source individuals' blood as soon as feasible after consent obtained to determine HBV and HIV infectivity,

If consent is not obtained, it will be established that legally required consent cannot be obtained.

When the source individual is already known to be infected, testing need not be repeated.

Results of tests are made available to exposed employees, and exposed employees informed of applicable laws and regulations about disclosures of the source individuals' identity and infectious status.

Exposed employees' blood will be collected as soon as feasible and tested after consent is obtained. If he or she consents to baseline blood testing, but not HIV testing, the blood sample shall be preserved for at least 90 days. If within 90 days of exposure the employee elects to have the blood sample tested for HIV, it shall be done as soon as feasible.

Post-exposure prophylaxis, when medically indicated, is offered as recommended by the U.S. Public Health Service, including counseling and evaluation of the reported illness.

The following information is provided the health care professional:

A copy of OSHA standard 29 CFR 1910.1030 - Occupational Exposure to Blood borne Pathogens,

A description of the exposed employees' duties relating to the exposure incident,

Documentation of route(s) of exposure and exposure circumstances,

The results of the source individuals' blood testing, if available, and

All medical records relevant to the appropriate treatment of the employee, including vaccination status, which are maintained.

The healthcare professionals' written opinion will be obtained and provided employees within 15 days of the completion of the evaluation.

The written opinion for post-exposure evaluation and follow-up are limited to the employee being informed of the results of the evaluation, and told about medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation and treatment.

All other findings or diagnoses will remain confidential and will not be included in the written report.

All the required medical records are maintained per OSHA 29 CFR 1926.33

CONFINED SPACE ENTRY PROGRAM

1. Purpose

The purpose of this program is to establish practices and procedures to protect employees from the hazards of entry into permit required confined spaces.

2. Definitions

Confined space - A space that is large enough that employee can enter and perform assigned work and:

- Has limited or restricted means of entry or exit
- Is not designed for continuous occupancy by the employee

Examples may include, but not limited to underground vaults, tanks, storage bins, pits and diked areas, vessels and silos.

Hazardous atmosphere - An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self rescue or acute illness from one or more of the following:

- Flammable atmosphere in excess of 10 percent of the lower flammable limit (LFL)
 - Combustible dust concentrations in excess of its LFL

- Oxygen content less than 19.5 percent or greater than 23.5 percent
- Exposure above the OSHA permissible exposure limit

Non-permit Confined Space - A confined space that does not contain or, with respect to atmospheric hazards, does not have the potential to cause any hazards capable of causing death or serious physical harm.

Permit Confined Space (Permit Space) - A confined space that has one of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere
- Contains a material that has the potential to engulf an entrant
- Has inwardly converging walls or floor that tapers to a smaller cross section that could trap or asphyxiate an entrant
- Contains any other recognized serious safety or health hazards

3. Responsibility

The Safety Representative has overall responsibility for the execution of this program and will coordinate with the Site Manager its implementation.

4. Training

All employees required to work in permit spaces will receive training before work begins. Employees will acquire the understanding, knowledge and skills necessary to safely perform their duties.

A "Confined Space Training Form" will be completed and signed by the employee upon completion of training. The Certification will include the date of training. Additional training will be required when:

1. Job duties change
2. There is a change in the permit-space program or the permit space operation presents a new hazard

3. When an employee's job performance shows deficiencies

Each member of rescue service shall be trained in basic first aid and in cardiopulmonary resuscitation (CPR).

5. Evaluation of Workplace

The workplace is to be evaluated by the Job Site Manager to determine if spaces are permit-required confined spaces. A Confined Space Decision Flow Chart will be used to determine if a permit is required. If permit spaces exist, the Site Manager will inform all employees of the existence, location, and danger posed by the spaces. This will be accomplished both verbally and by posting signs warning:

DANGER

- PERMIT REQUIRED CONFINED SPACE -

AUTHORIZED ENTRANTS ONLY

6. Permit System

The Site Manager may determine that it is necessary for employees to enter permit spaces. **A BC&E Corp., Confined Space Entry Permit must be posted at the permit space entrance or issued to entrants before they enter a permit space.**

The permit is an authorization and approval in writing certifying that all existing hazards have been evaluated by the Site Manager, and necessary protective measures have been taken to ensure the safety of each worker.

The Site Manager must do the following before issuing a Confined Space Entry Permit:

1. Identify and evaluate permit space hazards
2. Test conditions in the permit space before entry operations and monitor the space during entry
3. Plan the following:

-Date and time of entry

- Work to be accomplished
- Designate authorized entrants and attendants
- Identify the duties of entrants and attendants
- Methodology of Operation

- a. Cleaning
- b. Purging
- c. Ventilating
- d. Safe work practices

4. Specify acceptable entry conditions
5. Provide personal protective equipment
6. Station at least one attendant outside the permit space for the duration of entry operations
7. Coordinate entries involving more than one employer
8. Implement procedures for summoning rescue and emergency services

7. Duties

a) Authorized Entrant Duties:

- Know existing hazards, including information on the types of exposure and consequences of exposure
- Use appropriate personal protective equipment
- Maintain proper communication with attendants
- Exit permit space when ordered by an authorized person
- Alert the attendant when a prohibited condition exists or when warning signs or symptoms of exposure exist

- Wear a chest or full body harness with a retrieval line attached to the center of back near shoulder level, or above the head when entering permit space. (Wristlets may be used if the use of a full body harness would create a greater hazard). The other end of the retrieval line must be attached to a mechanical device or to a fixed point outside the permit space. A mechanical device will be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

b) Attendant Duties:

- Remain outside permit space during entry operations
- Perform **non-entry** rescues when necessary
- Know potential hazards, including signs or symptoms, consequences of exposure
- Maintain communication with authorized entrant
- Order evacuation of permit space when a prohibited condition exists
- Summon rescue and other services during an emergency
- Ensure that unauthorized persons do not enter permit space
- Inform authorized entrants and job Site Manager of entry by authorized persons
- Perform no other duties that interfere with the attendant's primary duties

c) Site Manager Duties:

- Ensure the use of ground fault circuit interrupters in wet conditions
- Prohibit smoking inside and within 20 feet of confined space
- Know space hazards including information on the mode of exposure, signs, or symptoms and consequences of exposure
- Ensure that fire extinguishers have been provided near permit spaces at all times
- Appoint an individual who is trained in First Aid/CPR to remain in the immediate area of confined space. The individual cannot be part of the operation inside the confined space.
- Verify emergency plans and specified entry conditions such as a permits, tests, procedures, and equipment before allowing entry

- Issue confined space entry permits
- Terminate entry and cancel permits when entry operations are completed or if a new condition exists
- Take appropriate measures to remove unauthorized entrants
- Ensure that entry operations remain consistent with the entry permit and that acceptable entry conditions are maintained.

d) Rescue and Emergency Services Duties:

- Know how to use equipment necessary for making rescues from a permit space
- Know how to perform rescue duties
- Practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which dummies, manikins, or actual persons are removed from the actual permit spaces or from representative permit spaces.

At least one member of the rescue service holding current certification in First Aid and in CPR shall be available.

If hazardous conditions are detected during entry, employees will immediately be ordered to leave the space. The Site Manager will evaluate the space to determine the cause of the hazardous atmospheres.

The duration of entry permits will not exceed the time required to complete an assignment or 1 eight (8) hour shift, whichever is shorter. The supervisor will terminate entry and cancel permits when an assignment has been completed or when new conditions exist. New conditions must be noted on the canceled permit and used in revising the permit space program. Canceled entry permits will be kept on file for 1 year.

EXCAVATION PROGRAM

1. Purpose

The purpose of the Excavation and Trenching Safety Program is to put in place work practices and procedures that will protect employees from hazards that may be found in or around excavations or trenches. This objective is met by:

a) Training Site Managers so they understand their duties and responsibilities.

b) Requiring that each Site Manager assure that all persons working in excavations have been provided adequate training as required by this program.

This program has been designed to comply with Occupational Safety and Health Administration (OSHA) standard 29 CFR 1926 Subpart P.

2. Responsibility

All employees that work in or around excavations must comply with the requirements of this program.

a) Safety Representative

The Excavation and Trenching Safety Program is administered by the Safety Representative who will:

Monitor the overall effectiveness of the program;

Assist with atmospheric testing and equipment selection as needed;

Provide training for designated Site Managers;

Assist the Site Manager with training of other employees;

Review and update the program on an annual basis as necessary.

b) Employees

All personnel that perform work in excavations shall comply with the requirements of this program and the OSHA standards.

c) Site manager and/or Trades Group Leaders

The Site Manager shall:

Coordinate the training of employees;

Ensure on a daily basis, or more often as detailed in this program, that work site conditions are safe for employees to work in excavations;

Determine the means of protection (sloping back the sides of the excavation, use of trench shields, or shoring) that will be used for each excavation project; and,

Ensure, if required, that the design of a protective system has been completed and approved by a Registered Professional Engineer before work is begun in the excavation.

3. DEFINITIONS

Refer to Subpart P of the OSHA construction standards for definitions.

4. TRAINING

All personnel involved in trenching or excavation work shall be trained in the requirements of this program. Employees shall be trained by the Safety Representative or his/her designee.

Training shall be performed **before** the employee is assigned duties in excavations which should include the following:

The work practices that must be followed during excavating or working in excavations;

The use of personal protective equipment that will typically be required during work in excavations, including but not limited to safety glasses, hardhats, and fall protective devices;

Procedures to be followed if a hazardous atmosphere exists or could reasonably be expected to develop during work in an excavation; and,

Emergency and non-entry rescue methods, and procedure for calling rescue services.

FALL PROTECTION PROGRAM

1. Purpose:

The purpose of this plan is to provide safety standards specifically designed to cover fall protection and insure that each employee is trained and made aware of the safety provisions which will be implemented by this plan.

2. Introduction:

This fall protection plan addresses the use of conventional fall protection and is designed to enable employees to recognize fall hazards and to establish the procedures that will be followed. You must understand your value to the company; the costs of accidents, monetary, physical, and emotional;

the safety rules that apply; and what your role is in administrating, implementing, monitoring and compliance of the safety policy and procedures.

3. Responsibility:

The project manager and Site Manager have the overall responsibility for the implementation and functioning of the fall protection program. Employees are responsible for using the provided fall protection equipment in accordance with the instructions and training received. Employees will immediately report any equipment malfunction to the job Site Manager.

4. Definitions:

Controlled access zone (CAZ) - means an area in which certain work may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled

Deceleration device - means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, automatic self-retracting lifelines/lanyards, etc. which reduces the forces an employee feels during a fall

Guardrail system - means a barrier erected to prevent employees from falling to lower levels

Hole - means a gap or void 2"(inches) or more in its least dimension, in a floor, roof, or the walking / working surface

Leading edge - means the edge of a floor, roof, or form work for a floor or other walking/working surface which changes location as additional floor, roof, decking or form work sections are placed, formed or constructed. A leading edge is considered to be an "unprotected side and edge" during construction periods when it is not actively and continuously under construction.

Lifeline - means a component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

Opening - means a gap or void 30 inches (76 cm) or more high and 18 inches (48 cm) or more wide, in a wall or partition, through which employees can fall to a lower level.

Positioning device system - means a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning.

Unprotected sides and edges - means any side or edge (except at entrances to points of access) of a walking/working surface, e.g., floor, roof, ramp, or runway where there is no wall or guardrail system at least 39 inches (1.0 m) high.

5. Fall Hazards

a) Locations and requirements -

Workers on walking/working surfaces with unprotected sides or edges six feet or higher above a lower level must be protected from falling by the use of guardrails, nets or fall arrest systems

.

Workers construction or working near leading edges at six feet or higher above a lower level must be protected from falls by guardrails, nets or fall arrest systems.

Workers must be protected from falling more than six feet through holes (including skylights) by hole covers, guardrails or personal fall arrest systems.

Workers on the face of form work or reinforcing steel must be protected from falling six feet or more by personal fall arrest systems, nets or positioning devices.

Workers on the edge of excavations deeper than six feet must be protected from falling by guardrail, fences or barricades when excavations are not easily visible.

Workers nears wall openings six feet or higher above lower levels and less than 39 inches above the walking/working surface must be protected from falling by guardrail, nets or personal fall arrest systems.

Workers on walking/working surfaces six feet or higher above lower levels which are not otherwise addressed must be protected from falling by guardrail, nets or personal fall arrest systems.

Where workers are exposed to falling objects, the employer must have each worker wear a hard hat and must:

erect toe boards, screens or guardrail to prevent objects from falling, barricade the area to which objects could fall and keep objects away from the edge of the higher level.

6. Fall Protection Systems Criteria And Practices

- The top edge of guardrail must be between 39 inches and 45 inches high.
- Midrails, screen, mesh or intermediate vertical members must be installed between the top edge of the guardrail and the walking/working surface when there is no wall or parapet wall at least 21 inches high.
- Guardrail must be capable of withstanding a force of a least 200 pounds applied within two inches of the top edge in any outward or downward direction.

- With 200 pounds of downward force the top edge of the guardrail must not deflect to less than 39 inches.
- Midrails, screens, mesh and intermediate vertical members must be capable of withstanding a force of at least 150 pounds applied in any downward or outward direction at any point along the midrail or other member.
- Guardrail must be surfaced in a way that will prevent punctures, lacerations and snags.
- The ends of top rails and mid rails must not overhang terminal posts unless an overhang would not create a projection hazard.
- Steel and plastic banding must not be used on top and mid rails.
- Top and mid rails must be at least one quarter inch nominal diameter or thickness.
- When guardrail is used in hoisting areas, a chain, gate or removable guardrail section must be placed across access opening when hoisting operations are not taking place.
- When guardrail are used at holes they must be erected on all unprotected sides or edges.
- When guardrail are used to protect holes which are used for passage of materials not more than two sides can be protected by removable guardrail.
- Safety nets must be installed as close as possible, but not more than 30 feet below the walking/working surface.
- Safety nets must extend outward from the outermost projection of the work surface (see regulations for distances).
- Lanyards and vertical life lines must have a minimum breaking strength of 5,000 pounds.
- Personal fall arrest systems when stopping a fall must limit the maximum arresting force on the worker to 1,800 pounds when used with a body harness.
- Personal fall arrest systems must be rigged so that the worker can neither fall more than six (6) feet nor contact any lower level.
- Positioning devices must be rigged to prevent free falls more than two (2) feet.

Fall Protection Plan

On areas less than 50' wide in which use of conventional fall protection systems are infeasible and a site specific fall protection plan has been developed for that particular area you may use the following:

- A. Warning lines must be erected around all sides of a roof area.
- B. Controlled access zones must be defined by a control line or other means that restricts access.
- C. When using safety monitoring systems a competent person must be used to monitor the safety of the workers.

7. Training Requirements:

All employees required to utilize fall protection will receive training before work begins. Employees will acquire the understanding, knowledge and skills necessary to safely perform their duties prior to utilization of each system. Training will be performed by the Safety Representative in the nature of fall hazards; procedures for erecting, maintaining, disassembling and inspecting systems used; the use and operation of systems utilized; the role of each employee; the correct procedures for the



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handling and storage of equipment and materials; competency review for accessibility and scaffolding rules and regulations; and the standards contained in OSHA 29 CFR part 1926 Safety Standards for Fall Protection in the Construction Industry, Final Rule.

A fall protection training form must be completed and signed by the employee and trainer upon completion of training. Additional or re-training will be required/performed when:

1. There is a change in condition.
2. There is a change in the system.
3. When an employee's performance shows deficiencies.
4. When an employee does not have the understanding and skills required by the initial training.

The guidelines for orientation and the training form which must be completed for new employees is located in Section 3 of this manual. A copy of this form must be retained at the site in the log book and the original forwarded to the office.

HAZARD COMMUNICATION PROGRAM - 1926.59

1. Introduction:

Irrespective of the requirements of OSHA regulations it is the intention of BC&E Corp., to provide safe and healthful workplaces for all employees.

To this end, this program becomes part of our overall company safety program and policies. The regulations for Hazard Communication are detailed and complex. We welcome your questions about this program and chemicals you use at your individual worksites. We also welcome your suggestions for improving this plan. The purpose is to protect your health, something we need your help to do.

2. Chemical Hazard List:

Any company employee purchasing materials not already on the list will notify the company safety Representative of the purchase and furnish a Material Safety Data Sheet with the notification.

To facilitate upkeep of the list and assist in employee information and training, it shall be a condition of purchase that all shipments to BC&E Corp., or its sites be accompanied by a Material Safety Data Sheet.

3. Non-Routine Hazards:

No employee will be allowed to perform non-routine work without first being oriented to the chemical hazards involved. Pipes containing hazardous chemicals will be labeled wherever possible. If they cannot be, employees will be informed of their contents and associated hazards before entering the work area. All employees are required to review Material Safety Data Sheets before using any covered chemical for the first time and with every new shipment to the jobsite thereafter.

4. Material Safety Data Sheets:

The Company will maintain Material Safety Data Sheets on all hazardous chemicals in use at the Central Office located at (Home address), Florida. In addition, it is a condition of purchase that material shipped to the jobsite will be accompanied by appropriate data sheets. The standard requires the manufacturer or importer to determine if a material is covered. If there is a determination a product is not covered the purchase order will require a statement to that effect to be furnished in the same manner Material Safety Data Sheets are furnished.

Material Safety Data Sheets will be available to all employees on a 7 day per week, 24 hour per day basis as a result of BC&E Corp., Building Co's contract with 3E Company. All company fax machines have the toll free number affixed to them. Additionally, all company employees are issued a wallet card with 3E's toll free number and instructions for obtaining MSDS's. MSDS's will be faxed by 3E to any site within 5 minutes. In the rare event that a fax machine is not available, the 3E company will verbally report the necessary information to the employee by telephone.

When MSDS's are received on site, the Site Manager is required to send a copy to the office as soon as possible. Each jobsite will maintain a master inventory listing of chemicals. Each job Site Manager will sign an acknowledgement that he/she has received an Updated Material Safety Data Sheet Book and will take full responsibility in keeping the Book updated as new MSDS Sheets are sent to him/her.

Material Safety Data Sheets will be available to other employers on multi-employers jobsites. Posters announcing their availability will be prominently posted on each jobsite.

All other employers are requested to check in with BC&E Corp., personnel before entering any work areas where hazardous chemicals are in use so that they can receive information on the hazards. This request will be posted on all jobsites.

Other employers will be informed by posting that we use manufacturer labels and Material Safety Data Sheets.

BC&E uses manufacturer labeled containers wherever possible. Transfer from large labeled containers to small container shall be to similarly manufacturer labeled containers wherever possible. If this is not possible, MSDS's labels or tags will be physically attached to the containers to serve as labels. The labeling system will be explained by a poster. This does not apply to chemicals transferred for the immediate use of the employee doing the transfer.



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ORIGINAL LABELS ARE NOT TO BE REMOVED OR DEFACED UNDER ANY CONDITIONS.

5. Training:

All new employees will be provided training in reading and interpreting a Material Safety Data Sheet, the provisions of this policy and the actual standard.

Each new employee will receive generic training to cover the basic types of hazardous chemicals used by the company and training in recognizing the release of hazardous chemicals.

Before assigning any worker or crew to a task requiring the use of hazardous chemicals their direct supervisor will be required to review with them information contained in the Material Safety Data Sheet including safety procedures, emergency procedures and required protective equipment.

Information on the Written Program, copies of the Standard, The Chemical Hazard List, and Material Safety Data Sheets can be obtained by contacting the Project Site Manager, Safety Representative at (telephone number).

The complete Hazard Communication Program, Hazard Communication Standard, Instructions on how to read and locate Material Safety Data Sheets, along with the Chemical List and complete Chemical Inventory are contained in your MSDS book. This book is to remain with your Safety Manual.

HEARING CONSERVATION PROGRAM

1. Purpose

This policy establishes the requirements for hearing protection.

2. Responsibility

The Safety Representative has overall responsibility for the execution of this program and will coordinate with the Site Manager its implementation.

Site Managers shall be responsible to ensure that areas where hearing protection is required are posted with appropriate signs in order to alert employees to the need for wearing protective devices.

Trades Group Leaders shall be responsible to ensure that employees working in areas or performing tasks designated as requiring hearing protection are using the equipment (ear plugs, muffs, etc.) provided by the company.

3. Policy

When feasible engineering controls do not reduce the noise level to or below the OSHA permissible exposure limit (PEL) of 90 dB, or reduce impact noise below 40 dB, proper hearing protectors shall used.

4. Exposure Determination

BC&E Corp., conducts detailed noise surveys using sound level meters that meet the appropriate ANSI standard and are calibrated acoustically before and after each survey. Measurements are made at employees' normal working positions. This procedure allows an accurate estimation of the employees' daily exposure except in instances where an employee is required to move from one working location to another in his/her daily routine, or when an employee's instantaneous noise exposure levels vary markedly during the shift because of machine cycling. In these cases, noise dosimeter is performed. Follow-up measurements are made whenever changes in work practices or methods may change workplace noise exposures. The results of all measurements are recorded, and employees are notified of their exposure level.

5. Training

At least annually, all new employees and those with a time-weighted average exposure level of 90 dba and above are reminded of the need for an effective hearing conservation program. The educational program consists of tool box talks and paycheck handouts. All employees are encouraged to ask questions concerning the program. Topics covered include the effects of noise on hearing, the purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on the selection, fitting, use, and care of protectors.

6. Personal Hearing Protection

Until such time as engineering and/or administrative controls reduce the amount of noise exposure to or below the allowed limits, appropriate personal hearing protective devices are made available and issued to noise-exposed employees.

As with all safety equipment, the wearing of hearing protection in required areas is mandatory. **All supervisors properly enforce hearing protection requirements.** Continuing failure of an employee to properly wear the protection provided shall result in disciplinary action as described in the "Employee Handbook."

7. Engineering And Administrative Noise Controls

Due to the nature of construction activities, and in view of economic limitations, some noise levels cannot currently be reduced to below acceptable limits. In those cases, suppliers of machinery purchased which produces noise levels exceeding the accepted guidelines have been notified of the high noise levels directly by the company or indirectly through the appropriate association(s) of which this company is a member. The supplier has been requested to redesign machinery where possible to meet the defined regulations. As an interim solution, the company has considered the building of partial or total enclosures, and other engineering noise control procedures for reducing the existing noise levels, where such procedures are deemed technologically and economically feasible.

Within the limitation of work schedules and employee skills and training background, administrative controls have been considered. Where feasible, over-exposed employees are moved to other areas having noise levels below the required levels. In addition, operational procedures are modified as

necessary so that during any one twenty-four hour period the allowed exposure times will not be exceeded.

HOT WORK PROGRAM

1. Purpose

The purpose of the hot work permit system is to prevent fires and explosions whenever hot work such as welding, cutting, burning and spark-producing activities are performed outside of a regulated area set aside for this purpose such as the welding shop.

2. Responsibility

The Site Manager has the overall responsibility for the implementation and functioning of the hot work program. The Site Manager shall appoint an authorized hot work permit coordinator during periods where hot work procedures are being utilized. The authorized hot work permit coordinator in charge of the hot work procedure will be responsible for helping other employees to perform a pre-work site inspection.

3. Training

The designated hot work permit coordinator and/or the Safety Representative prior to performing hot work shall train each employee who will be involved in the hot work procedure.

5. Procedure

- Before any hot work is performed, a permit will be filled out by the authorized hot work permit coordinator to ensure the area is as free as possible from fire hazards. The permit will also designate that other precautions have been taken.
- The attached permit includes the pertinent information that must be addressed.
- Permits are available from the Safety Representative.
- The authorized hot work permit coordinator and the employee who will be undertaking hot work will sign the permit once all precautions have been taken.
- The permit will be posted at the hot work site and will remain posted for at least 30 minutes after hot work has been concluded.
- Standby fire extinguishers and a fire watch will be present.
- Once the work and the 30-minute follow-up have concluded, the permit will be turned in to the safety Representative.
- Any discharged fire extinguisher will be recharged.

LOCKOUT/TAGOUT

1. Purpose

This procedure establishes the requirements for the lockout-tag out of energy isolating devices. This procedure will be used to ensure that the machine(s) or equipment is isolated from all potentially

hazardous energy, and locked and tagged before an employee(s) performs any servicing or maintenance activities where the unexpected energization, start-up or release of stored energy could cause injury.

2. Responsibility

The Site Manager has the overall responsibility for the implementation and functioning of the lockout-tag out program. The Site Manager shall appoint an authorized LOTO coordinator during periods where LOTO procedures are being utilized. The authorized lockout-tag out coordinator in charge of the lockout-tag out procedure will be responsible for helping other employees to locate and lockout and tag valves, switches, etc., through the owners' authorized representatives.

3. Training

Each employee who will be involved in the lockout-tag out procedure shall be trained by the designated lockout-tag out coordinator and/or the Safety Representative prior to performing work on any mechanical, electrical system, etc.

4. Preparation for Lockout-Tag out Procedures

Conduct a survey to locate and identify all isolating devices to be certain which switch (es), valve(s) or other energy isolating devices apply to the equipment to be locked and tagged out. The lockout-tag out procedure involves, but is not limited to, electric motors, compressed air, hydraulic systems, steam systems, digesters, sewers, etc.

5. Lockout-Tag out Restrictions

Lockout and tag devices must not be used for any purpose other than controlling energy.

Lock and tag devices must be able to withstand any kind of environment they may be used in. It must be ensured that tags which are to be used in adverse conditions will not deteriorate.

Lockout requirements are not met by just the removal of fuses.

Locks and tags are not to be removed by any other person except the individual who applied the device. Removal of another employee's tag and/or lock will result in immediate termination.

No employee shall rely on another employee's lock and tag device to lock and tag out equipment.

6. Sequence of Lockout-Tag out System Procedure

The lockout-tag out log is to be completed prior to commencing any work. The log shall consist of the following information:

- Date and time of installation and removal of locks and tags
- Name of employee applying the lock and tag

- Name of employee's employer
- Machine or apparatus being locked out and disconnected
- Purpose for locking and tagging the system(s)
- Lock number.
- Authorization to proceed with work duties.

Notify all affected employees that lockout-tag out system is going to be utilized and the reason for it. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilized and shall understand the hazards thereof.

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

Operate the switch, valve, or other energy isolating device (s) so that the equipment is isolated from its energy source (s). STORED ENERGY (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, disconnecting, etc.

The lockout device must be affixed to each energy isolating device by only authorized employees. The lockout devices, where used, must be affixed in a manner that will hold energy isolating devices in a "safe" or "off" position. Every effort is to be made to ensure that new or overhauled equipment can accommodate locks. "Danger-Do Not Operate" tags are to be attached to each locking device. The tag will include the name of employee, employer, and date of attachment.

If more than one individual is required to lockout and tag out equipment, each person has to place his/her own personal lockout-tag out device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lockout or tagout device (hasp) must be used (Exhibit C). Each employee will use his/her own lock and tag to secure the system. As each person no longer needs to maintain his or her lockout-tagout protection, that person will remove his/her lock. NO EMPLOYEE MAY REMOVE THE LOCK OF ANOTHER EMPLOYEE

After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating control (s) to "neutral" or "off" position after the test.

In the event a lockout device cannot be utilized, a tag out system is to be implemented. The tag out device is to be affixed so it will clearly indicate that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited. Employees are to be trained in the following limitations of the tag out system: 1) tags are warning devices and do not provide the physical restraint

a lock does; 2) the tag is not to be removed without authorization of the authorized person responsible for it; 3) tags must be legible, understandable and made of a material which will withstand the environmental conditions; and 4) the tag is to be securely attached so that they cannot be inadvertently or accidentally detached during use. Where a tag cannot be affixed directly to the energy isolating device, the tag is to be located as close as safely possible to the device in a position immediately obvious to anyone attempting to operate the device.

The system is now properly locked out.

7. Restoring To Normal Operation

When working on equipment that requires "inching" or "jogging" to move parts for adjustment or maintenance, special attention at the energy source must be continued until work is completed. Special attention involves an employee stationed at the primary disconnect switch (the energy source) which he would switch off in the event the secondary switch would fail during "inching" and "jogging".

After the servicing and/or maintenance is complete and equipment is ready for normal production operations, check the area around the machines or equipment to ensure that no one is exposed.

After all tools have been removed from the machines or equipment, guards have been reinstalled and employees are in the clear, notify the designated lockout-tag out coordinator before the removal of the tag and lock. After authorization is given, remove all lock and tag out devices. Operate the energy isolating devices to restore energy to the machine or equipment.

8. If An Employee Forgets To Remove A Lock And Tag

- No employee may remove the lock and tag of another employee. The exception to this is when an employee has forgotten to remove his/her lock and is not available to do so.
- The designated lockout-tag out coordinator is the only person who may remove a lock or tag only after:
- -Verification is made by the employer that the authorized employee who applied the device is not at the facility.

- All reasonable efforts are made to contact the authorized employee to inform him/her that his/her lockout and tag out device is to be removed
- -Ensuring that the authorized employee has the knowledge of their lock and tag removal before he/she resumes work at the facility

9. Definitions

- **LOCKOUT:** The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.
- **LOCKOUT DEVICE:** A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.
- **CAPABLE OF BEING LOCKED OUT:** An energy isolating device will be considered to be capable of being locked out either if it is designed with a hasp or other attachment or integral part to which, or through which, a lock can be affixed, or if it has a locking mechanism built into it. Other energy isolating devices will also be considered to be capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.
- **TAGOUT DEVICE:** A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tag out device is removed. The tag will include the name of the employer, name of employee, and date of attachment.
- **AUTHORIZED AND DESIGNATED LOCKOUT-TAGOUT COORDINATOR:** A person authorized and designated by the project manager/project Site Manager that will be responsible for making contact with the owners' authorized representative to locate all systems to be locked-tagged out, and then assist other authorized employees to locate and lockout-tag out valves, switches, etc.
- **AFFECTED EMPLOYEE:** An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tag out, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.
- **AUTHORIZED EMPLOYEE:** A person who locks out and tags or implements a tag out system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment. An authorized employee and an affected employee may be the same person when the affected employee's duties also include performing maintenance or service on a machine or equipment which must be locked-tagged out.
- **ENERGY SOURCE:** Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

- **ENERGY ISOLATING DEVICE:** A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently; a block; and any similar device used to block or isolate energy. The term does not include a push button, selector switch, and other control circuit type devices.
- **SERVICING AND/OR MAINTENANCE:** Work place activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of adjustments or tool changes, where the employee may be exposed to the unexpected energization or start up of the equipment or release of hazardous energy.

RESPIRATORY PROTECTION PROGRAM

1. Purpose

The primary objective of this program is to prevent excessive exposure to airborne contaminants. Where feasible, this shall be accomplished through engineering controls (for example, enclosure or isolation, general or local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted or evaluated, the use of appropriate respiratory protection will be required. In these situations respiratory protection is provided at no cost to the employee.

2. Responsibility

a) Safety Representative

The Safety Representative is responsible for the implementation, functioning and evaluation of the Respiratory Protection Program.

b) Employees

Employees are responsible for using the provided respiratory protection in accordance with the instructions and training received, and maintaining the equipment in a clean and operable condition. Employees will immediately report any respirator malfunction to the job Site Manager.

c) Site Managers and Trades Group Leaders

Site Managers and Trades Group Leaders are responsible for ensuring that tasks which require the use of respirators are identified. The Safety Representative can assist with this. Site Managers and Trades Group Leaders are also responsible to ensure that when respirators are required that

employees are utilizing them. ONLY trained and approved employees shall be permitted to don a respirator.

3. Respirator Selection

1. The guidelines outlined in this section provide assistance in the selection of appropriate respiratory protection by company personnel. The company shall provide appropriate approved respiratory protective devices and the employees shall use these devices whenever necessary to protect their health due to the nature of the work environment. The respiratory protective devices selected in each situation will depend upon the information from a qualitative and/or quantitative determination of the hazard.
2. Respirators and accessories shall be available for employees and shall be worn in areas that have been designated by the Safety Representative.
3. The nature of respiratory hazard, as it refers to the selection and classification of respirators, depends upon the atmospheric oxygen concentration; a contaminant's physical state, toxicity, and concentration; the presence of other contaminants or stress factors in the working environment; and worker exposure time and susceptibility. Respiratory hazards may be classified as gas and vapor contaminants (immediately or not immediately dangerous to life or health), particulate contaminants (immediately or not immediately dangerous to life or health), and oxygen deficiencies. Each classification requires a different type of respiratory protection.
4. Respirators shall be selected on the basis of hazards to which the person is exposed with consideration given to both safety and health factors as well as probable risk. These health and safety factors include the nature of the hazard, intended uses and limitations of respiratory protective devices, movement and work rate limitations, and training requirements.
5. Among additional general considerations in determining the appropriate respirator are sorbent efficiencies, odor warning properties, eye irritation potential, protection factors (PF), lower flammability limit (LFL), and conditions which are immediately dangerous to life or health (IDLH -- as defined in 29 CFR 1910.120).

6. Respirators shall be provided by the company at no cost to its employees. Acceptable respirators must be approved by NIOSH.
7. Some gaseous contaminants will migrate across the adsorbent or absorbent bed while the respirator is not in use, such as overnight. This migration subjects the user to an initial dose of the contaminant when the respirator is again placed in service. Therefore, as a minimum, gas/vapor cartridges shall be disposed of after each day's activities no matter how short those activities were. A day's activities would begin when the plastic seal or bag is removed from the cartridges allowing those cartridges to be exposed to moisture. These cartridges, even if they are not exposed to a contaminated atmosphere, must be discarded. A label must be attached to the cartridge indicating the installation date.
8. Air-purifying respirators may not be used in oxygen deficient or IDLH atmospheres. They must be outfitted with the proper chemical cartridges for protection against vapors and gases and the proper filters for protection against particulates.
9. The following table relates the respirator type with the maximum allowable concentration based upon PEL for the full range of respiratory protection.

<u>Airborne Concentration</u>	<u>Required Respirator (Minimum)</u>
Not in excess of 10 x PEL *	Half-mask air-purifying respirator
Not in excess of 50 x PEL *	Full facepiece air-purifying respirator
Not in excess of 100 x PEL *	A powered air-purifying respirator (or a supplied air respirator in the continuous flow mode)
Not in excess of 1,000 x PEL *	Full facepiece supplied air respirator in pressure demand mode
Over 1,000 X PEL * or unknown	Full facepiece supplied air respirator in pressure demand mode with auxiliary positive pressure self-contained breathing apparatus

The OSHA PELs are considered minimal standards.

4. Respirator Cleaning, Inspection, & Storage

Wherever possible, respirators will be assigned to individual workers for their exclusive use. Workers will be responsible for maintenance and sanitation of respirators assigned to them. Periodic and frequent spot checks will be made by supervisory personnel to insure compliance. Respirators, for the exclusive use of an individual, will be cleaned at least once a day at the end of the shift. Respirators, used by more than one worker, shall be cleaned and disinfected after each use. Respirators will be stored in a clean, sanitary place on the jobsite reserved solely for that purpose. No respirators may be removed from any jobsite except on written authorization from the Safety Representative.

Areas, where respirators are in use, shall be closely monitored by the Safety Representative to insure compliance and safe conditions. Unauthorized and untrained personnel will be prohibited from entering these areas. Crew sizes for work requiring respiratory protection will be kept to the smallest practical size and the makeup, for short duration operations, will not be changed unless absolutely necessary.

5. Medical Monitoring

1. 29 CFR 1910.134(e)(1) requires that the employer provide a medical evaluation to determine the employee's ability to use a respirator. The Medical Evaluation and Respirator Use Questionnaire (in Appendix D) shall be completed for each associate required to wear a respirator. The medical evaluation shall be sealed in an envelope and returned to the Safety Representative. The employee will be asked if they answered "Yes" to questions 1 through 8 in Section 2, Part A. All positive answers (yes) on the questionnaire will cause the employee to be referred to the local consulting physician or other licensed health care professional (PLHCP) for a qualified opinion regarding respirator usage by the company associate. The PLHCP's opinion should be reviewed and a written report prepared. Specification of the pertinent health and physical conditions is delegated to the local PLHCP.

2. 29 CFR 1910 Subpart Z contains medical surveillance requirements for persons with exposure to specific substances

3. To comply with record keeping requirement, the annual/periodic medical examination should be performed by the same physician or clinic where possible. The medical surveillance program shall be provided to covered personnel without cost to them.

6. Evaluation of Program Effectiveness

This program will be under constant review to determine that it meets its stated goal of providing maximum employee protection. Suggestions for improvement of this program should be submitted to the Safety Representative.

7. Training

Each employee assigned to an area requiring the use of a respirator will be instructed, by the Safety Representative, in the proper use and limitations of the respirators. The training will be based on manufacturers' directions which include:

- Hazards to which employees are potentially exposed
- Fit Testing
- Inspection Procedures
- Proper Use and Wearing Instructions
- Emergency Procedures
- Maintenance and Sanitation Instructions
- The nature and hazard encountered and the reason for respiratory protection.

A "Respirator Issuance, Training and Fit Testing Form" will be completed and signed by the employee upon completion of training.

8. Fit Testing

1. Prior to fit testing, each employee shall receive instruction in donning, positioning on the face, adjusting strap tension, and in the conventional negative and positive pressure sealing checks which will be conducted each time the respirator is worn.

a. Negative Pressure Sealing Check: The inlet openings of the cartridges are covered with the hands. Then the wearer inhales gently and holds his breath for at least 10 seconds. If the facepiece collapses slightly and no inward leakage of air into the facepiece is detected, it is reasonable to assume that the fit may be satisfactory. If the cartridges are too large for the wearer's hands, it may be necessary to substitute rubber surgical gloves or replace the cartridge inlet seals.

b. Positive Pressure Sealing Check: For this test the exhalation valve is covered and the wearer exhales gently. If the wearer can feel a slight positive pressure build up inside the facepiece without detecting outward leakage of air between the facepiece seal and his face, the fit may be satisfactory. For respirators with exhalation valve covers, the cover must be removed before the test and replaced immediately thereafter. This is sometimes difficult to accomplish without disturbing the fit.

2. Respirators shall not be worn when conditions prevent a good face seal and fit testing will not be conducted when such conditions are present. Clean shaven skin must be in contact with all respirator sealing surfaces. Even a mild growth of whiskers may interfere with this seal. In addition, respirators shall not be worn when conditions such as sideburns, a skull cap that projects under the facepiece, temple pieces on corrective spectacles or goggles, or the absence of one or both dentures prevent a good facepiece-to-face seal. Therefore, while on duty, all company personnel within the scope of this policy must be clean shaven in the areas of the respirator face sealing surface and the

face. If hair growth, other than in the clean shaven area of facepiece-to-face seal, interferes with the proper function of the respirator such as the exhalation valve, then it shall be altered or removed so as to eliminate interference. It shall be the responsibility of the wearer to assure that nothing protrudes into and disturbs the face seal area or the form or function of the respirator or its valves.

3. Corrective lenses which interfere with the facepiece-to-face sealing area shall not be used with a full facepiece. Contact lenses may be worn with a full facepiece with the approval of the Program Coordinator.

Fit test procedures are detailed in Appendix B.

9. Recordkeeping

The following records, pertinent to the respiratory protection program, shall be maintained by each respirator user. Recordkeeping forms are found in Appendix D.

1. The respirator fitting and training record. This record shall be maintained for one year beyond the last date of employment.
2. The record of medical surveillance. This record must be maintained for the duration of employment plus thirty years.
3. Exposure record. This record shall be maintained and compiled annually by each respirator user for inspection by the Program Coordinator at the time of the annual medical surveillance. Thereafter, the record will be maintained for seven years.
4. Respirator inspection records with results, including parts replacement, as appropriate. These records shall be maintained for one year following the last inspection.
5. Respirator issuance records. These records shall contain information on the personnel assignments for each respirator.

Following termination of employment, records maintained by the individual shall be transferred to the Program Coordinator for further retention as required by federal regulations.

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1. The respirator fitting and training record. This record shall be maintained for one year beyond the last date of employment.

2. The record of medical surveillance. This record must be maintained for the duration of employment plus thirty years.
3. Exposure record. This record shall be maintained and compiled annually by each respirator user for inspection by the Program Coordinator at the time of the annual medical surveillance. Thereafter, the record will be maintained in for seven years.
4. Respirator inspection records with results, including parts replacement, as appropriate. These records shall be maintained for one year following the last inspection.
5. Respirator issuance records. These records shall contain information on the personnel assignments for each respirator.

Following termination of employment, records maintained by the individual shall be transferred to the Program Coordinator for further retention as required by federal regulations.

SILICA EXPOSURE PROGRAM

1. Purpose

The purpose of this program is to establish practices and procedures to protect employees from silica inhalation hazards associated with grinding, and/or drilling of concrete or sandblasting operations.

2. Responsibility

a) Safety Representative

The Safety Representative has overall responsibility for the execution of this program and will coordinate with the job Site Manager its implementation.

b) Site Supervisors and Trades Group Leaders

Site supervisors and Trades Group Leaders are responsible to ensure that employees are utilizing proper engineering controls and/or utilizing respiratory protection as deemed necessary by the Safety Representative. Progressive disciplinary procedures as outlined in the "Employee Manual" shall be implemented for failure of an employee to comply with Company policy.

c) Employees

Employees shall follow directives from site management and the safety Representative regarding proper work technique, ventilation, and/or respiratory protection practices.

3. Training

Employee Training is required by 29 CFR 1926.21 (Safety Training and Education) and 29 CFR 1926.59 (Hazard Communication). Training shall consist of:

Instruction of each employee in the recognition and avoidance of unsafe conditions concerning crystalline silica

Information concerning the potential physical and health hazards, and adverse health effects, of crystalline silica

Information on personal hygiene and personal protective measures or equipment required

Details of the employer's hazard communication and crystalline silica programs including information on labeling, and material safety data sheets

Instruction on the employer's personal protective equipment and respiratory protection programs including selection, inspection, use and maintenance of respirators

4. Air Monitoring

Breathing zone personal air monitoring shall be conducted at representative locations for typical operations to gauge airborne exposures to silica. Engineering and administrative controls as well as selection of PPE shall be coordinated between the Safety Representative, Workers' Compensation provider, and Site Supervisor.

5. Respiratory Protection

The use of respiratory protection for controlling worker exposure to crystalline silica is to be used only after all feasible engineering and administrative controls have been investigated and implemented. When such controls are not feasible to achieve full compliance, these control methods are to be supplemented with protective equipment or other protective measures (such as respiratory protection) to keep employee exposure to air contaminants below the permissible exposure limit.

6. Medical Surveillance

The NIOSH crystalline silica alert recommends medical examinations be made available to employees who may be exposed to crystalline silica before job placement and at least every three months thereafter. BC&E Corp., shall make such examinations available to employees if exposure above the PEL is identified. The examination will be performed under the supervision of a licensed physician during normal working hours at no cost to employees. Medical examinations will include a complete medical and occupational history; annual chest x-ray; pulmonary function tests; and an annual evaluation for tubercula

