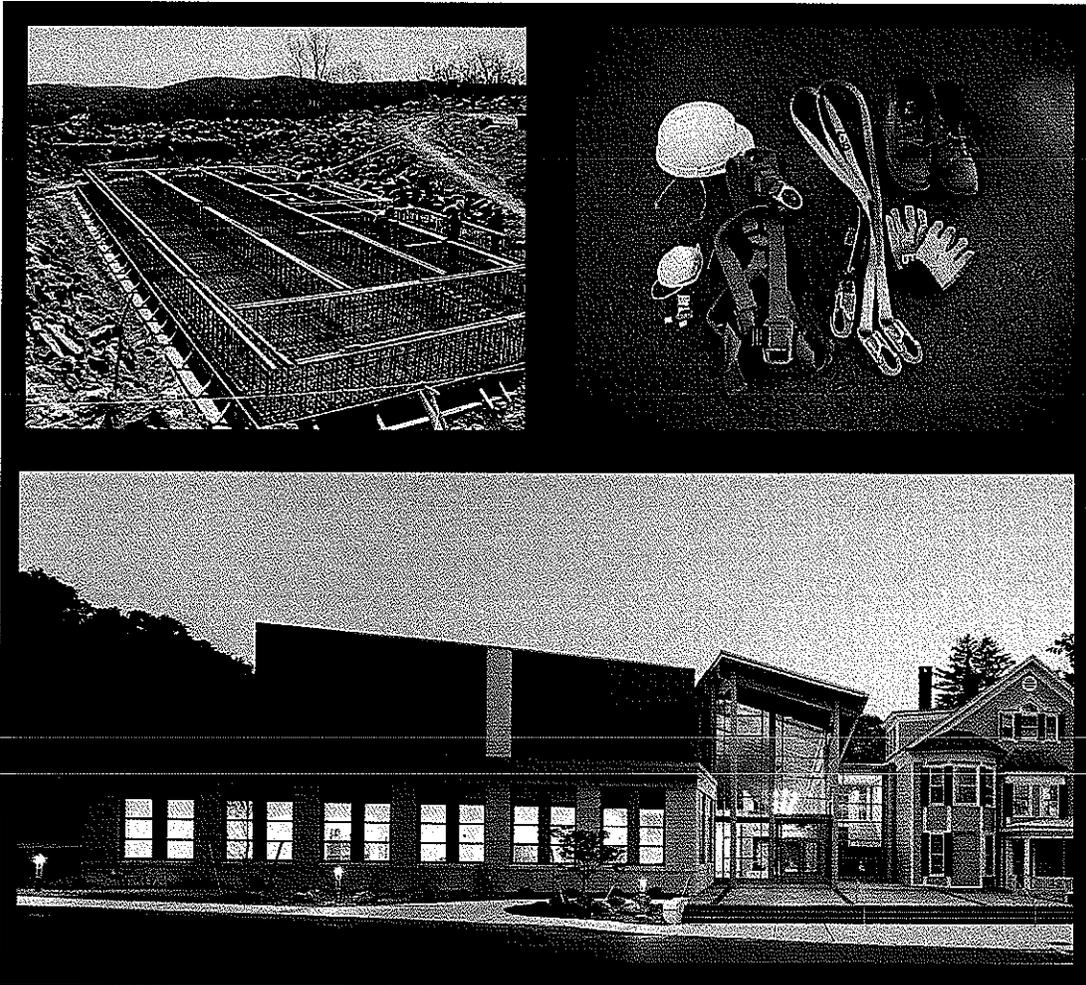


FIP CONSTRUCTION, INC.

SAFETY & HEALTH PROGRAM



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www.fipconstruction.com



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1.1 FORWARD

FIP's Safety & Health Program addresses key elements that are considered critical to the safe conduct of our work. Our program is not a finite statement. Rather, it is a program that undergoes continual revision in order to provide the finest protection for our employees and our assets.

FIP recognizes that a successful safety program is conditioned on the relative transition of written provisions to actual performance and has incorporated procedures to insure that this transition is accomplished. The actual success of our safety program is measured by the performance of our work force. Every FIP employee will be responsible for conducting their work in the safest way possible. There can be no compromise as the safe performance of our work is equal to and as important as the quality of our products.

The Safety & Health Program is a tool that assists FIP to provide a safe and healthy work environment. Essential components, provisions and procedures have been included in this program. Because the Program will continue to expand in definition and sophistication, the Safety & Health Program has been packaged in a format that will expedite revision and the inclusion of addenda.

A Word About This Manual: This manual has been designed to serve several purposes including a supervisory guide, a general reference guide for organizations associated with FIP, and as a master policy statement. Therefore, some parts and sections may not be applicable for each purpose.

1.2 PRESIDENT'S POLICY STATEMENT

FIP Construction, Inc. is committed to a safety and loss control program that will prevent injury and loss to all employees as well as to people and property directly or indirectly associated with our work. Our purpose is to instill a personal concern for individual and group safety. The level of our success will be determined by a decrease in the frequency and severity of all accidents and losses.

Top management considers no phase of operations or administration of greater importance than accident prevention and asserts that accidents which result in personal injury and damage to property and equipment represent needless waste and loss. Therefore, the policy of FIP is to conduct all operations safely and to prevent injuries and losses during the performance of our work.

Planning for safety starts with design and continues through purchasing, fabrication, construction, operations, and maintenance. Reasonable steps shall be taken to develop and maintain safe and hazard-free environments. To minimize occupational hazards, adequate protective and corrective equipment shall be provided and used by all persons, including subcontractors, at all work locations and in accordance with our Safety Program.

The operation of the Safety & Health Program is directed by the President, the Safety Director, and the Project Superintendents.

Executive management will insure that the Program is supported and will guide its progress by example and direction. Management and respective personnel shall be responsible for the continued development and implementation of the Program. Periodic field surveys will identify safety problems and evaluate the status and effectiveness of the Program. Management will also investigate all bodily injuries and property losses and will develop procedures to prevent their recurrence.

The overall success in preventing accidents or loss is in direct proportion to the cooperation and support provided by all employees to our Loss Prevention Program. Accident prevention shall be integrated with operating functions, continuing as a prime responsibility of management.

William G. Hardy
President & COO

2.0 SAFETY RESPONSIBILITIES

The Safety Policy can only be made effective by supervisors setting personal examples and exercising close supervision of all working conditions and methods.

Safety is a prime responsibility of all employees. The line of authority for safety matters is the same as for general business. All supervisors shall ensure that employees under their direction shall be safety conscious.

2.1 MANAGEMENT RESPONSIBILITIES

- Provide the means to accomplish the Safety Policy.
- Enforce the Safety Policy.
- Appoint a Safety Director (when necessary).
- Monitor home office and job site safety activities and take necessary action to correct unsatisfactory performance.
- Establish and provide safety training.
- Provide necessary personal protective gear and safety equipment and materials.
- Assure continuing support for the program and insist upon adherence by all personnel.
- Distribute relevant reports, accident data and changes in regulations and codes which affect company operations.
- Provide advanced planning for all projects to employ engineering and administrative controls which contribute to the overall corporate Loss Control Report.

2.2 SAFETY DIRECTOR RESPONSIBILITIES

- Supervise the Safety & Health Program.
- Conduct a pre-job safety planning review at job start-up.
- Provide Project Superintendents with copies of appropriate safety regulations, accident report forms and safety signs and posters.
- Safety & Health Program Manual to be made available to all subcontractors at FIP's main office and also project sites for compliance with Company Safety Policy.
- Provide job sites with a copy of OSHA Publication No. 2207 or equivalent (The Construction Industry Standards, Part 1926).
- Make frequent and regular inspections of the home office, shop and job sites to provide workplace manager with notice of corrective action requirement for implementation.
- Identify existing and potential hazards/exposures and require home office, shop and job site management to take corrective measures to eliminate them.
- Follow through by tracking corrective measures noted by inspections of insurance carrier, job site walk throughs by in-house personnel, local, state, and Federal officials and by others. Organize and assist quarterly Safety Committee Meetings.
- Periodically issue Technical Safety Bulletin Policies.
- Review Accident/Incident Investigation Reports, ensure required follow-up and corrective action and forward required reports to government agencies.
- Report to Management periodically on Safety & Health Program progress, problems and objectives so Management can take action as required.
- Provide safety training.
- Fully utilize the assistance of our insurance carrier, safety organizations and other resources.
- Meet regularly with the Safety Committee to review serious accidents, discuss results of job site inspections and recommendations, and to review safety activities.
- Follow-through on all recommendations submitted by insurance carrier and outside regulatory agencies.
- Be available for consultation on all matters concerning safety and health and develop the technical information needed by all levels of management to make sound decisions.

2.3 PROJECT MANAGER RESPONSIBILITIES

- Conduct a pre-job safety planning review at job start-up.
- Monitor job site safety and require Superintendent to take necessary action to have unsatisfactory performance corrected immediately.
- Review all Accident/Incident Investigation Reports from assigned job sites and see that the corporate Safety Director receives full reports.
- Be accountable for controlling accident losses on assigned project in compliance with these established procedures.
- Maintain a continuing check of unsafe conditions or practices during their inspection tours.
- Maintain close contact with Project Superintendent and site Foreman to advise them about safety problems.
- Take prompt action to correct unsatisfactory conditions and work practices brought to their attention.

2.4 PROJECT SUPERINTENDENT RESPONSIBILITIES

- Ensure that all employees understand their safety responsibilities.
- Instruct employees in safe work practices. Make sure all work is performed in a safe manner and no unsafe conditions or equipment are present.
- Ensure availability of all necessary personal protective gear and equipment, job safety materials, first aid and firefighting facilities and procedures, plus proper use.
- Act without delay on all hazards, both unsafe acts and conditions, which are within the scope of the position's authority.
- See that all injuries are treated, investigated and reported, telephonically and on accident forms, through the Project Managers to the Safety Director. Review all accidents with employees. Ensure a thorough investigation and see that immediate corrective action is taken.
- See that subcontractors abide by the Company Safety Policy.
- Assign various safety activities to others as needed but retain the ultimate responsibility for the job site safety.
- Inform Project Management of problems which lie beyond their authority.
- Conduct and document weekly "Tool Box" Safety Meetings.
- Ensure all injuries are cared for immediately and all accidents/incidents are reported promptly.

2.5 SAFETY COMMITTEE RESPONSIBILITIES

- To meet quarterly with an agenda dealing with all of the below and keep minutes of meetings which shall include a signed record of attendees. Minutes of meetings shall be sent to the Safety Director.
- Urgent safety and health problems must be brought to the attention of the Safety Director immediately.
- Perform quarterly Job Site Safety Inspections, using Job Site Safety Inspection Checklist, and report results during committee meetings.
- Review safety incidents, accidents, illnesses and deaths with Safety Director and discuss possible causes and recommendations.
- Evaluate Accident and Illness prevention programs with Safety Director.
- Discuss ways of improving supervisor and employee safety education for identification and reduction of all workplace hazards. Participate in brainstorming for beneficial training program for future planning and implementation.
- Review the results of Safety Director Job Site Inspections and discuss major problems uncovered and how they may be eliminated.

2.6 EMPLOYEE RESPONSIBILITIES

The primary employee responsibilities, outlined below, are mandatory:

- Constantly observe work conditions, equipment, and tools for the purpose of preventing accidents.
- Comply with all job safety instructions. Requires asking for help when unsure of how to perform any task safely.
- Use all safety equipment which is required on the job.
- Correct unsafe acts or conditions within the scope of their immediate work.
- Report any unsafe acts to supervisors.
- Advise supervisors of any faulty tools or equipment.
- Stop work if the conditions are such that there is immediate danger to life, limb or property.

In addition, the employee should prevail himself/herself of company and industry sponsored safety programs. The responsible employee also provides fellow employees help with safety requirements.

- Report all accidents/incidents (near misses) or injuries to the supervisor – no matter how minor.
- Work Safely!

2.6 SUBCONTRACTORS' EMPLOYEES' RESPONSIBILITIES

All subcontractors' employees working at all FIP Construction, Inc. projects are contractually obligated to comply with all legally constituted safety requirements, this Safety & Health Program and, if any, the owner's safety program. These combined safety requirements constitute the **minimum** safety performance expected of all subcontractors' employees.

The employee should make themselves available for company and industry sponsored safety programs. The responsible employee also provides fellow employees help with safety requirements.

Each subcontractors' employee shall be held responsible for his or her own safety and health compliance. Subcontractors' employees who fail to comply with job site safety rules **will not** be acceptable.

2.7 SUBCONTRACTORS' AND VENDORS' RESPONSIBILITIES

All subcontractors working on FIP Construction, Inc.'s projects are contractually obligated to comply with all legally constituted safety requirements, FIP Construction, Inc.'s Safety & Health Programs and if any, the owner's safety program. These combined safety requirements, constitute the **minimum** safety performance expected of all subcontractors and vendors.

Subcontractor supervisors unable or unwilling to assure personnel performance in compliance with the contractual obligations will not be acceptable as supervisors and shall, if sub-standard performance warrants, be removed from the project. Failure to follow these job safety and health policies and procedures could result in backcharges being assessed to the subcontractor or vendor.

All subcontractors shall supply FIP a copy of their Health & Safety Program, Written Hazard communication program and an updated site-specific list of material on site with MSDS for those materials. These items shall be given to the project superintendent prior to start on the project and will stay on site until contractors' completion of work.

Each subcontractor and vendor shall be held responsible for their subcontractors' safety and health compliance regardless of tier. Subcontractors' employees who fail to comply with FIP Construction, Inc.'s job site safety rules **will not** be acceptable.

On public projects all subcontractors' employees, regardless of tier, must submit an OSHA ten-hour safety training card which is no more than five years old per Connecticut General Statutes Section 31-53b pertaining to prevailing wage statutes.

All subcontractors will designate a responsible individual and introduce that individual to the Project Superintendent upon arrival at the job site, who will then assume direction of their safety and health activities and will:

- Recognize and implement the safety and loss control requirements contained in the "Compliance With Law" and "Safety" Sections of the Subcontract Agreement.
- Plan and execute all work so as to comply with all Federal, State and local laws, regulations or standards pertaining to safety and health.
- Take immediate action on safety and health problems.
- Conduct routine job site inspections and notify Project Superintendent of any unsafe conditions that may exist.
- Be responsible to see that none of his employees work in an unsafe manner or in an area, which is not safe until proper corrective measures are taken by the responsible subcontractor.
- Assume the responsibility for the availability and use of Personal Protective Equipment for those individuals under his control.
- Attend Weekly Project Management meetings scheduled by FIP Construction, Inc.
- Be available for FIP Construction, Inc.'s insurance representative when necessary.
- Notify FIP Construction, Inc. and all other subcontractors when actions or activities undertaken by them could affect the health or safety of an employee of other companies.
- Verbally notify an FIP management representative within **twenty-four** (24) hours that an accident took place on the job site. Written notification in the form of a completely filled out and legible accident report is to be provided to FIP Construction, Inc. within **five** (5) days of the accident.
- Hold 5 to 10 minute "Tool Box" safety meetings for all his employees. Provide written documentation of the meeting topic and a signed attendance list to the Project Superintendent.
- Report any chemical spill to Project Superintendent immediately; no clean-up or defensive actions are to be taken unless subcontractor has certified and trained emergency responders in accordance with OSHA regulations.
- Check in with job site Superintendent before entering job site and notify all vendors and approved visitors of Visitor Log maintained within Construction Trailer.

2.8 NOTICE OF FIP SAFETY & HEALTH VIOLATION: CORRECTIVE ACTION REQUIREMENT

Date _____

Employees Name _____

You are hereby advised that you are in violation of OSHA Regulations Section 29 CFR 1926._____.

It is the responsibility of _____ to correct the violation without delay.

Comments/Violation Description: _____

ACKNOWLEDGED:

FIP Superintendent

FIP Safety Director

2.9 FINAL NOTICE OF CORRECTIVE ACTION REQUIREMENT

Date _____

Employees Name: _____

Reference is made to our "Notice of Corrective Action Requirement" letter to you dated _____ regarding various violations of FIP Construction, Inc.'s minimum safety and health requirements. As of this late date, these violations have not been corrected.

For the third and final time, we remind you of your obligations outlined in the FIP Health and Safety Program _____.

1. _____

2. _____

You are directed to rectify your work practices.

Failure on your part to take remedial action will force us to terminate your employment.

Sincerely,

By: _____
Project Superintendent
and/or

Safety Director
and/or

By: _____
Project Manager
and/or

Vice President

3.0 PRE-PROJECT PLANNING

To establish standard safe work procedures the job site requires a study of the hazards connected with each specific project. From this study, the work methods and protection necessary to make the work safe can be developed along with their cost. A careful study should be made, during the estimating and planning stages of each project, of all phases of the operation and all equipment usage proposed to determine that it will be suitable to achieve management stated loss control goals. There are three main phases that should be considered: (1) preparation; making ready or setting up, (2) operation; actual construction, (3) disposal; the transport of either the product created or the materials of waste relating to it. In addition, the following should be considered:

3.1 SAFETY REQUIREMENTS OF OWNER, CONTRACTOR OF GOVERNMENTAL AGENCY

Management's responsibility includes implementation of the provisions of the Occupational Safety and Health Act and any local/state regulations which may be more stringent and/or restrictive. The existence of special policies or procedures of owners shall be incorporated into this Safety & Health Program,

3.2 SAFETY & HEALTH PROGRAM COMPLIANCE

Requirements for compliance with this Safety & Health Program shall be included in the contracts of subcontractors and vendors.

3.3 PRE-CONSTRUCTION SURVEYS

Arrangements for surveys of nearby structures prior to start of operations, if there is a potential for claims from vibrations, subsidence, dust, etc. may occur.

3.4 PURCHASE OF SAFETY EQUIPMENT

Ordering of safety equipment to arrive ahead of schedule is of paramount importance. Safety features desired on equipment to be purchased or rented is mandatory.

3.5 PUBLIC RELATIONS

Procedures to assure local property owners about efforts to keep inconvenience, dust or mud, noise, traffic, debris, vibrations, and the like, at a minimum (use of printed information or form letters may be desirable).

3.6 SCOPE OF PROPOSED OPERATIONS

- Review plans and specifications; type of work; insurance coverage's provided and requirements of Owner/Contractors contract.
- Applicable safety standards (OSHA, State, local, contractual, other).
- Existing conditions, (material handling, asbestos, or potentially hazardous existing materials).
- Project start date and duration.
- Number of workers to be employed.
- Subcontract work, certificate of insurance?
- Pre-job planning and safety meeting consideration.

3.7 CONTROLS INVOLVING EMPLOYEE EQUIPMENT AND MATERIALS

- First aid and medical facility requirements
- Location of workers, materials and equipment
- Clearing of land
- Excavations
- Evaluation of superimposed loads
- Utility exposure, overhead wires or temporary protection of existing utilities
- Dirt and soil removal, clean-up or disposal
- Movement of supplies, equipment and vehicles
- Storage facilities
- Personnel facilities
- Work areas and work surfaces
- Mechanical equipment, guarding and safety devices
- Housekeeping and sanitation
- Fire prevention and fire protection
- Traffic patterns, road layouts, parking areas
- Hand tools and power tools
- Ladders, scaffolds, nets, overhead protection, shoring, and other safety requirements
- Occupational disease prevention
- Personal protective equipment
- Electrical safety
- Sanitary requirements and drinking water
- Noise, pollution and other special requirements
- Security
- Frequent and regular inspections of project
- Effects of weather on various phases of construction

3.8 CONTROLS CONCERNING PUBLIC PROTECTION

- Walkway needs and condition (installation of a maintenance program for pedestrians).
- Directions to public (warning signs, flagman, lighting, fencing, barricades, etc.).
- Proximity of operations to children and general public (schools, playgrounds, parks, churches, residential areas, hospitals, commercial or business areas, etc.).
- Maintenance and protection during non-working hours and adverse weather.
- Pedestrians and children - need for temporary walkways, lighting, overhead protection, watchmen, security equipment, fencing, maintenance during non-working hours, adverse weather and other methods of protection.
- Consider "attractive nuisances" caused by hoisting, demolition, ladders, scaffolds, heavy equipment, etc.

3.9 CONTROLS CONCERNING ADJACENT PROPERTY

- Proximity, type and values of adjacent property exposures. Potential for business exposures?
- Underpinning, sheeting, shoring, freezing, tiebacks, slurry walls, and other excavation procedures. By whom?
- Vibrations from pile driving, blasting, concrete breaking, frost ball operations, compactors and other similar operations.
- Dewatering and recharging of deep wells, well points, water sources, surface drainage. Design criteria by whom? Monitoring system?
- Trespassing (employees, material, supplies, equipment operation, spoil disposal parkway, fences, sidewalks, driveways, etc.).
- Pre-job Survey – by Whom?; Records?; Retention?; Photos?; Sketches?

- Constant monitoring of elevation points on adjacent structures to detect evidence of settlement. Consider post-job surveys to confirm "Damage" or "No Damage."
- Railroad exposures.
- Erosion control measures.
- Work in wetlands – all permits in place before starting work?

3.10 CONTROLS CONCERNING EXPOSURE TO STREET TRAFFIC

- Plans for approved barricading and lighting. What standards apply – state, city, county, ANSI, OSHA, etc.?
- Construction and maintenance of detour routes (pilot vehicles, flagman, dust control, weekends, holidays, non-working hours).
- Authority (local officials and property owners' consent).
- Access and exit of truck route, material delivery to site, employee parking.

3.11 FIP PRE-JOB STARTUP SAFETY CHECK LIST

Project Name _____ Project No. _____
Superintendent _____ Date _____

PLANNING THE JOB SITE

1. Communication systems established?
2. Water (including drinking water) and sanitary facilities (# of employees)?
3. Arrangements for security of job site, (fencing, lighting, etc.)?
4. Electrical ground fault protection or assured equipment grounding conductor program?
 Are they documented?
5. Clean-up and waste disposal schedule?
6. Perimeter survey of existing conditions, (utilities, streets, structures)?
7. Traffic: Safe access, stairs, ladders, traffic patterns, sidewalk bridge, protection for abutters and general public?
8. Safety & Health Program Manual to subcontractor at contract signing?
9. Are all required regulatory posters and information posted?
10. Are safety meetings being held?
11. Are they documented?
12. Is the FIP Construction, Inc. Safety & Health Program Manual on site?
13. Plan for location of trailer, material storage, parking and dumpsters?

EMERGENCY NEEDS

1. First aid supplies (checked at least weekly)?
2. Fire extinguishers or equivalent water supply?
3. Emergency evacuation plan completed, reviewed and posted?; post sketch showing fire hydrants and fire alarm boxes if necessary.
4. Are emergency phone numbers posted near a phone? Including site address?
5. Are there first aid/CPR trained personnel on the job site?

PROTECTIVE EQUIPMENT

1. Hard hats (provisions for visitors)?
2. Standard safety glasses (provisions for visitors)?
3. Respirators, where necessary?
4. Ear protection, where necessary?
5. Guarding materials for perimeter, scaffolds and floor holes?
6. Approved safety cans for flammable liquids?
7. Body belts, lifelines, lanyards, safety nets or other forms of fall protection, where necessary?
8. Gloves
9. Eye and face protection
10. Life jackets - life rings - life boats
11. Foot protection
12. Is electrical safety acceptable (Assured Grounding Protection Program and/or GFCI protection)?

HEALTH & ENVIRONMENTAL CONTROL

1. First aid, training, etc.
2. Portable toilet or equivalent facilities
3. Trash receptacles
4. Washing facilities
5. Ladders and scaffolds
6. Engineering of noise control
7. Pre-survey of exposures: blasting, pile driving, noise, dust, etc.
8. Is drinking water available in a proper container?

FIRE PROTECTION, PREVENTION & MAINTENANCE

1. Flammable storage cabinets approved?
2. Flammable liquid quantities and distances from buildings, equipment and people?
3. Explosives?
4. Are compressed gas cylinders stored and secured properly?
5. Are adequate fire extinguishers available?
6. Is the site clean and free of debris?

TRENCHING & EXCAVATION

1. Shoring - shields
2. Sloping to angle or repose
3. Competent person on site?
4. Proper Access/egress?

SIGNS, SIGNALS & BARRICADES

1. Public protection
2. Employee protection
3. Flagman, employee or local authorities?

EQUIPMENT

1. Are the capacities of the material and personnel hoists clearly identified?
2. Backup alarms
3. Rollover protection - clearing guard
4. Seat belts
5. Safety inspections (cranes, etc.)
6. Will the cranes swing near electrical power lines? If so, have you taken adequate precautions, e.g. protected the lines, de-energized the lines, developed a swing clearance diagram, etc.?
7. Is equipment placed on preventive maintenance schedule?

HIGH HAZARD PREVENTION PLANS

1. Establish steel erection plan?
2. Establish a metal decking plan?
3. Establish a fall protection plan?
4. Establish a roofing protection plan?
5. Establish a weather and wind advisory procedure or plan?

Instructions: Complete at beginning of job and periodically thereafter. File with job site safety materials.

3.12 FIP SAFETY CHECK LIST

Job No. _____ Project Name _____
Superintendent _____ Date _____

Instructions: Complete at beginning of job and periodically thereafter. File with job site safety materials.

1. _____ Is all required OSHA information posted?
2. _____ Are emergency phone numbers posted near a phone?
3. _____ Are stocked first aid kits available?
4. _____ Are safety meetings being held?
_____ Are they documented?
5. _____ Are there first aid/CPR trained personnel on the job site?
6. _____ Is drinking water available in a proper container?
7. _____ Is the site clean and free of debris?
_____ Are trash cans provided?
8. _____ Are adequate fire extinguishers available?
9. _____ Are employees and contractors wearing proper personal protective gear?
10. _____ Is there adequate barricading of open shafts, stairwells, and floor perimeters?
11. _____ Are scaffolds properly guarded?
12. _____ Is safety netting installed?
13. _____ Is electrical safety acceptable (Assured Grounding Protection Program and/or GFCI protection)?
14. _____ Are compressed gas cylinders stored and secured properly?
15. _____ Are the capacities of the material and personnel hoists clearly identified?
16. _____ Will the cranes swing near electrical power lines?
_____ If so, have you taken adequate precautions, e.g. protected the lines, de-energized the lines, developed a swing clearance diagram etc.?

4.0 JOB SITE BASIC SAFETY PROGRAM ELEMENTS

All job sites are to maintain safe and healthful working conditions for all employees as outlined in this program. The basic components of a successful risk management program begin with management commitment and planning, involve hazard assessment, hazard assessment and control, and solidifies these previous activities through employee involvement and safety and health training. The following elements contribute to the overall success of the program.

4.1 SAFETY INSPECTIONS

Regular safety inspections are conducted at all operations. These inspections are fact finding and are used to identify both acceptable and deficient safety practices and conditions. Informal safety inspections are conducted every work day. Job supervisors are responsible for identifying and correcting safety problems. Job diaries are often used to record these activities. Because job conditions can change frequently, daily inspections are an important loss prevention activity. There is some latitude in who is assigned the actual inspection task. In most cases, job supervisors conduct the inspections.

FIP calls upon Liberty Mutual's Technical Consultant to provide regular, structured inspections. Generally, all operations receive monthly inspections. After each inspection, recommendations are left at the job site. In a week or two, a formal report is sent to the Vice President of FIP and subsequently copies to key personnel. This report documents deficiencies, acceptable practices, and summarizes the results of past inspections.

The Safety Director conducts regular formal comprehensive inspections with Superintendents when possible. Although the Safety Director performs a function similar to safety engineering, the activity takes on a more personal and broader perspective because this person is directly involved in all of FIP's activities. The results of these inspections are shared with the Vice President and other management personnel.

Subcontractors are responsible for providing a written response which describes the corrective action taken as a result of the "Notice of Corrective Action Requirement" letter they have received and to provide a response to the Project Superintendent who will forward the response to the Safety Director.

Summary: The inspection program considers immediate and long-term safety exposures. Both informal and structured formats are used. All insurable risks, including workers' compensation, general liability, auto liability, and builder's risk, are covered.

- Project Superintendents will conduct routine inspections and institute correction of unsafe acts and/or unsafe conditions.
- Daily safety inspection notes shall be included in the daily job site reports and/or bound in the construction and maintenance daily log book.
- Project Managers will report to the Project Superintendent any unsafe acts/conditions as he views them during his visits to the job site.
- The Safety Director will visit the job site and provide inspections and reports on a scheduled or as needed basis.
- Company management personnel will assist by pointing out safety concerns during job site visits.

4.2 WORK PLACE CONTROL

- General Safety Rules for company and subcontractors' employees are to be posted at all work sites.
- A continuous survey of the project to assure that all operations are in compliance with all Federal, State and local safety and health standards.
- Regular surveys of project operations and conditions should be conducted to identify principle sources and causes of possible injury and loss due to unsafe methods and conditions. Corrective action should immediately be taken to eliminate these unsafe methods and conditions.
- A weekly checklist inspection will assist in covering most potential accident causes and provides for easy follow-up.

4.3 SAFETY AND HEALTH COMMITTEE MEETINGS

- Committee Membership and Composition
 - a. Composed of at least as many employee members as employer members.
 - b. The number of employee members may be greater than the number of employer members.
 - c. Non-managerial employees shall select employee safety and health committee members.
 - d. Each committee shall have a chairperson elected by its members.
 - e. Employer and employee members should have rotating responsibilities for chairing committee meetings.
 - f. Committee members will be representative of the major work activities of the company.
- Frequency of Committee Meetings
 - a. Committee will meet as necessary, but not less than once per quarter.
- Committee Recordkeeping
 - a. Shall be maintained and made available to the State of Connecticut, Chairman of the Workers' Compensation Commission or his designee.
 - b. Records shall be maintained for a minimum of three (3) years.
 - c. Shall include minutes of meetings with a record of attendance in the same form as Weekly Project Management Meetings are recorded.
- Duties and Function of Committee Members
 - a. To inspect or cause to be inspected at least one job site per quarter.
 - b. To investigate safety and health incidents, accidents, illnesses and injuries.
 - c. Evaluate accident and illness prevention programs.
 - d. Recommend the establishment of training programs for the identification and reduction or elimination of all hazards and sources of loss in the workplace.

4.4 PROJECT MANAGEMENT MEETINGS

These weekly meetings afford the opportunity to discuss safety issues for both ongoing construction activities and pre-planning for upcoming activities. Issues and directions are to be recorded in the meeting minutes. General safety discussions should be the first issue on the agenda. A suggested list of topics should include:

- Weekly Construction Safety Talks.
- Weekly injury reports.
- Outstanding items from last week.
- Review and discussion of safety and inspection reports.
- Discussion of corrective actions required to be taken.
- Anticipated problems in safety or health as foreseen in the construction schedule.

4.5 JOB SAFETY INSTRUCTION AND TRAINING

FIP defines job safety instructions as a teaching/learning process; the premise being that behaviors associated with safe work and the ability to anticipate and react to hazards are learned.

Within FIP's organization, informal teaching/learning situations occur frequently, often as a function of the work itself. We recognize that these informal situations can be highly effective, even though they are usually unstructured. The following structured teaching/learning or training situations are specifically designed to promote appropriate safety behaviors and are required:

- First Aid/CPR training classes will be available periodically to qualify Project Superintendents with current First Aid certificates.
- The Project Superintendent shall conduct a minimum of one safety meeting per week with all personnel under his direction to stress current safety considerations.
- All employees will be instructed by their immediate supervisor in the recognition and avoidance of unsafe conditions and regulations applicable to the work environment.

4.6 TRAINING GUIDELINES

- A. Determine if training is needed
 - 1. Is there a problem that training can solve?
 - a. General areas of concern are general safety, health and work rules.
 - b. Training can address lack of knowledge of a work process,
 - c. Unfamiliarity with equipment,
 - d. Incorrect execution of a task.
 - 2. Is there a problem that training should be able to solve?
 - a. Training can be less effective for problems arising from an employee's lack of motivation or lack of attention to the job.
- B. Identifying training needs
 - 1. What type of training is needed?
 - a. Identify what an employee is expected to do,
 - b. And in what ways, if any, the employee's performance is deficient.
 - 2. Have you conducted a job analysis?
 - a. To pin point what an employee needs to know in order to perform a job.
- C. Identifying goals and objectives
 - 1. Closely identified needs lead to clear objectives!
 - a. Instructional objectives, if clearly stated, will tell an employer what they want their employees to do, to do better, or to stop doing.
 - 2. Learning objectives shall be clear and measurable objectives!
 - a. Must identify precisely what individuals will do to demonstrate they have learned.
 - b. Use specific, action-oriented language; the instructional objective should describe the preferred practice or skill and its measurable behavior.
 - c. Objectives most effective when other qualified persons can recognize when the desired behavior is being exhibited.
- D. Developing learning activities
 - 1. Identify and describe
 - a. Must enable employees to demonstrate they have acquired the desired skill.
 - b. Must enable employees to demonstrate that they have acquired the knowledge.
 - c. Simulation of actual job for assurance on transfer of desired skills and knowledge.
 - d. Sequence activities as they correspond to job task or specific job process.
- E. Conducting the training
 - 1. Organization of the presentation
 - a. Provide an overview of the material to be learned
 - b. New information or skills shall be related to the employees' goals, interests, or experience.
 - c. Reinforce what employees have learned by summarizing the program's objectives.
 - d. Review all key points of information covered.

2. Structure and format of the training
 - a. Frequency of training activities.
 - b. Length of the training sessions.
 - c. Instructional techniques.
 - d. Qualified individual to conduct training.
 - e. The letters a-d above are determining factors for training based upon:
 - Content developed for the training program
 - Nature of the workplace or training site
 - Resources available for training
- F. Evaluating program effectiveness
1. Critical to understand the amount of learning achieved or whether performance has improved.
 - a. Questionnaires for employees/students.
 - b. Informal discussions with employees/students.
 - c. Supervisor's observation of employee performance both before and after training and note any improvements or changes.
 - d. Changes throughout the workplace that result in reduced injury or accident rates.
 2. This information is used to revise training program if needed or decide to periodically train.
- G. Improving the program
1. Questions to ask the instructor and the students
 - a. Were parts of the content already known and, therefore, unnecessary?
 - b. What material was confusing or distracting?
 - c. Was anything missing from the program?
 - d. What did employees learn, and what did they fail to learn?
 2. Questions to ask self during evaluation of the training process
 - a. Was the job analysis accurate?
 - b. Was any critical feature of the job overlooked?
 - c. Were the important gaps in knowledge and skill included?
 - d. Was material already known by the employees intentionally omitted?
 - e. Were instructional objectives presented clearly and concretely?
 - f. Did the objectives state the acceptable level of performance that was expected?
 - g. Did the learning activity actually simulate the actual job?
 - h. Was the learning activity appropriate for the kinds of knowledge and skills required?
 - i. When presented, were the organization of the material and its meaning made clear?
 - j. Were the employees motivated to learn?
 - k. Were the employees allowed to participate actively in the training process?
 - l. Was the employer's evaluation of the program thorough?
 3. A critical examination of the steps in the training process will help the employer to determine where course revision is necessary.

5.0 ACCIDENTS

The Project Superintendent shall establish an emergency procedure plan to react promptly to a major accident/injury or emergency. The following is a checklist, which shall be followed in case of such an emergency.

5.1 EMERGENCY ACTION PLAN

Fire is the primary threat for which evacuation planning is provided. However, other contingencies such as bomb threats, explosions, gas leaks and nearby emergencies at surrounding buildings or Interstate highways could impact our construction projects. Other contingencies could occur such as loss of heat, power or severe weather warnings. Many situations occur without warning and therefore require an immediate response. Such immediate responses are usually initiated by an occupied building fire alarm system, which will sound off when activated by manual pull stations, automatic fire, smoke or heat detection systems and/or an open sprinkler head. On construction sites where there are no occupied buildings under renovation, the alarm system of choice will be an air horn.

All alarms shall be treated as a legitimate warning to evacuate. Upon hearing the alarm, all persons shall immediately begin to exit their area. No person shall delay to collect personal property other than a coat and only when such coat is within arm's reach. No person shall attempt to carry with them any items that could hinder or impair the exit of others along the route.

All persons shall exit along route of travel to pre-designated areas. All persons upon completing their exit shall muster at the pre-designated site outside the building for a head count to insure that everyone is accounted for.

5.2 EMERGENCY ALARM SYSTEM

The emergency alarm system is used to mobilize field personnel during emergency situations. FIP Construction, Inc. will review this policy with each subcontractor. Subcontractors are then required to review this policy with their own personnel and inform them of the different emergency signals. All subcontractors are required to have a head count of all individuals placed in their charge each and every morning. During an emergency situation, all personnel will meet at the pre-designated muster area location as established by the FIP Project Superintendent.

The different signals of the emergency action plan are as follows:

- One (1) blow of air horn: Alert all qualified first aid personnel.
- Two (2) blows of air horn: Alert all foremen of all trades.
- Three (3) blows of air horn: All personnel must evacuate the building.

5.3 EMERGENCY RESPONSE TELEPHONE NUMBERS & INFORMATION

PROJECT: _____

DATE: _____

PROJECT ADDRESS: _____

FIRE DEPARTMENT PHONE NUMBER _____ EMERGENCY 911

POLICE DEPARTMENT PHONE NUMBER _____ EMERGENCY 911

AMBULANCE PHONE NUMBER _____ EMERGENCY 911

DOCTOR/HOSPITAL PHONE NUMBER _____ EMERGENCY 911

NAME OF TRAINED FIRST AIDER ON JOB _____

LOCATION OF FIRST AID KIT _____

LOCATION OF FIRE EXTINGUISHERS AVAILABLE _____

LOCATION OF NEAREST FIRE HYDRANT _____

LOCATION OF MAIN LINE SHUTOFF FOR: GAS _____

PHONE NUMBERS FOR: ELECTRIC _____

GAS _____

ELECTRIC _____

WATER _____

PHONE NUMBER FOR CALL BEFORE YOU DIG _____ 1-800-922-4455

ANY AREAS OFF LIMITS TO WORKERS _____

PARKING AREA FOR EMPLOYEES IF PROBLEM _____

HAZARDOUS WASTE CLEAN-UP: CHEMTREC _____ 1-800-424-9300

CLEAN HARBOR _____ 1-401-461-1300

5.4 NOTIFYING THE FIRE, AMBULANCE OR POLICE DEPARTMENT

In the event that a municipal department is called, the following procedure should be followed:

1. Keep CALM.

2. TALK in a normal manner. Do not talk too fast or too loud.
3. Identify yourself and the name and address of the project.

4. State the problem:

- a. I am calling to report a:

Fire
Spill
Chemical Release
Explosion
Hostage Situation

- b. Explain the situation.

- c. Give exact location in the project.

5. This event occurred at: _____ time.

6. The material involved is: _____

7. The material is a: _____ gas _____ liquid _____ solid

8. The amount involved is: _____

9. The incident is _____ ongoing, _____ terminated as of _____

10. There are No injuries OR

There are _____ injuries (give the approximate number)

11. The potential health and environmental effects from exposure to the material are:

12. If the incident is a chemical spill or release, is the material leaving the site?

_____ Yes _____ No

5.5 ACCIDENT NOTIFICATION PROCEDURES

The Superintendent will immediately notify the Vice President, Safety Director and Project Manager regarding accidents resulting in serious physical harm or death or extensive property damage.

5.6 PUBLIC RELATIONS FOLLOWING SERIOUS INJURY OR ACCIDENT

In the event of fire, accidents or serious injuries, it is the policy of FIP Construction, Inc. to immediately restrict access to the site to all unauthorized personnel. All workers should be evacuated from the building and directed to safe areas. Company personnel are to aid the police or other public officials having jurisdiction in any way possible. The project site must be secured at the earliest possible time.

FIP Construction, Inc. will defer to the policy and/or public officials having jurisdiction with respect to their policy as to the press and media. No one is allowed on the site except those required to aid in the resolution of the accident because of the hazards which may be involved.

The Project Superintendent, or his designated alternative, will take charge in the event of a major accident. The following is a checklist which should be followed in case of such an accident:

1. Stop work.
2. Call for assistance from the appropriate municipal emergency personnel.
3. Notify the main office (Safety Director and Project Manager).
4. Call for site evacuation to clear site access roads, if necessary.
5. Issue instructions to foreman or other FIP Construction, Inc. employees.
6. Set up security measures at the accident site.
7. Set up communications center in the field office trailer.
8. Other desirable actions as conditions warrant them.
9. Reference Emergency Action Plan for guidance in evacuation.
10. Refer to the *Emergency Administrative Procedure* (below) for FIP Construction, Inc.'s media communication policy.

5.7 EMERGENCY ADMINISTRATIVE PROCEDURES

This section contains specific information about other components of the Safety & Health Program.

Emergency Administration Procedures:

Preparation for serious situations can reduce confusion and loss. There are at least five such situations that require immediate, level-headed action. They are:

1. Death
2. Multiple or Serious Injury
3. Major Theft
4. Acute Vandalism
5. Protesters

General Course of Action: Though not applicable to each situation, this guide reflects management's general policy for serious situations. When human life is lost or seriously threatened, your first priority is to give aid to the injured and to secure the work environment so that additional injury is prevented. Simultaneous with this action, emergency medical,

police and/or fire assistance will be sought. You will immediately notify key management of the situation. Depending upon the work, you will be instructed on whether the work should be shut down or continued. Any additional action will be dictated by the specific situation.

A serious situation will probably prompt inquiries from the media. Always try to defer inquiries to upper management. If you cannot, follow these guidelines:

- Tell the truth.
- Do not tell anything "off the record."
- Use understandable language.
- If you do not want it used, do not say it.
- Condense the information.
- Never say "no comment."
- Stay away from liability issues.
- Emphasize the positive and communicate the corporate message.
- Give accurate information.
- Take control of hostile situations.
- When possible, create visual analogies.
- Never be trapped into predicting the future.
- Identify the spokespersons to reporters.
- Correct incorrect information.
- Use opportunities to communicate something positive.
- Keep gum and other things out of your mouth.
- Do not wear sunglasses.

(Source of these guidelines: Falls Management Institute)

5.8 ACCIDENT FOLLOW-UP

All occurrences shall be thoroughly investigated. The proper investigation of a "Near Miss" will substantially reduce the chance of a recurrence and the possibility of an injury or an additional insurance claim. Do not limit investigations only to bodily injury (Workers' Compensation) accidents. An accident is any unwanted, unplanned event that interrupts the normal flow of scheduled activity. Investigated properly, the cause can be determined, corrected, and a chance for recurrence eliminated.

Accident investigation records should not be concerned with the fixing of blame for an accident, but determining the causes of an accident. It is the elimination of the causes and sub-causes of an accident that will lead to the prevention of future occurrences.

5.9 ACCIDENT INVESTIGATION

The Project Superintendent shall investigate and provide a written report of all accidents.

1. Follow emergency procedure until the accident situation is stabilized.
2. Investigate the accident. Find out WHO, WHEN, WHAT, WHERE and HOW?
3. Draw diagrams, mark up drawings.
4. Record status of construction at the scene at the time of the accident. Indicate what work was in place and what work was going on.
5. Determine how many subcontractors were working in the area, with how many workers each, and what activity they were performing.
6. Identify witnesses. Record their names and employers. Try to interview them in private regarding the accident description and cause. Ask them to sign a statement of description and cause.
7. Obtain copies of reports by others (Police, Fire Department, Ambulance Service, Subcontractors, Doctors, etc.).

8. Describe any corrective action taken to prevent reoccurrence.
9. Provide a written report as described below.

5.10 ACCIDENT REPORTING PROCEDURES

Reserved.

5.11 PROCEDURE IF FIP CONSTRUCTION, INC. EMPLOYEE IS INJURED

1. Notify the main office (Safety Director and Project Manager) by telephone that the accident took place. Follow all procedures established dependent upon circumstances present, next begin your own investigation and fill out the Accident Investigation Report Forms.
2. The Project Superintendent must also fill out the "Employers First Report of Injury" form.
3. Send the original of the form to the Safety Director and attach it to the original FIP Construction, Inc.'s Accident Investigation Report Form along with any other pertinent information.
4. Distribute these forms to the Project Manager and Safety Director within five (5) days of the accident. Maintain a copy on file at the job site.

5.12 PROCEDURE IF SUBCONTRACTOR EMPLOYEE IS INJURED

Reserved.

5.13 PROCEDURE IF PUBLIC PERSON IS INJURED

1. Institute emergency procedures.
2. Coordinate and cooperate with police, fire rescue, and other public officials having jurisdiction in any way.
3. Notify the main office (Safety Director and Project Manager) by telephone that an accident has taken place. Follow all procedures established dependent upon circumstances present, next begin your own investigation and fill out the Accident Investigation Report Forms.
4. Obtain names and addresses of all injured people and witnesses.
5. Complete and submit the original FIP Construction, Inc. Accident Investigation Report Form along with any other pertinent information to the main office.
6. Distribute these forms to the Project Manager and Safety Director within five (5) days of the accident. Maintain a copy on file at the job site.

5.14 ACCIDENTS CAUSING PROPERTY DAMAGE TO PROJECT PROPERTY AND/OR NON-PROJECT PROPERTY

Reserved.

5.15 ACCIDENT RECORDKEEPING

1. Federal OSHA laws require accident and illnesses of Company employees to be summarized in January and *Posted in the Project Site Offices each February*, (OSHA 300 Form). Failure to post same may result in our being fined by OSHA.
2. The information required is compiled from the Company's "Employer's First Report of Injury" forms and Company "Accident Investigation Report" forms.
3. The Safety Director shall maintain a file for Safety and Accident Reports.
4. OSHA compliance officers may request to review job site safety files during an OSHA inspection. These records are on file at the main office.

5.16 CLAIMS CONTROL

The result of an accident may cause work interruption, a minor or major injury, or even death. Once the accident sequence is set in motion, no one can do anything to control the result. Every accident could result in a fatality. One of the keys to controlling a claims case once it has happened is follow-up. A key to controlling similar accidents is internal company publicity to all job sites. We have established "**Emergency Administration Procedures**" to guide all employees in the event a serious situation rises. These corporate guidelines which address public dissemination of information during such emergencies is referenced in Paragraph 5.7.

FIP is prepared to respond to all losses including injury to persons or loss of, or damage, to, property whether belonging to the company or others, and whether insured or not. The responsibility for claims management and investigation is administered by the Safety Director, the Project Superintendent, and the insurance company's Claims Supervisors.

Claims Management/Investigation includes:

1. Meeting all state and Federal reporting and documentation rules and regulations.
2. Meeting all provisions of existing insurance policies.
3. Verbally notify Insurance Representative within five (5) days of the accident.
4. Ensuring that all people affected by bona fide losses are compensated fairly and in a timely manner.
5. Contesting and/or reducing the exposure of all losses that may not be bona fide.
6. Providing regular reviews and evaluations of all losses including amounts paid and amounts reserved.
7. Providing investigative reviews for all significant losses.
8. Providing an environment that fosters the return to work of any injured employee which includes providing light duty work (when available) for employees with a limited work capacity.
9. Providing Executive Supervision with monthly summaries of claims management/ investigation active.

6.0 OFFICE SAFETY

Reserved.

7.0 VEHICLE SAFETY

FIP owns cars and trucks which employees use during the course of work. Each vehicle has an assigned driver who is responsible for the vehicle's care, custody, and control. The assignment of a company vehicle is generally limited to management and made with these conditions:

1. The vehicle assignment is not for an indefinite period and may be revoked at any time.
2. Assigned drivers are responsible for having routing service performed; all costs paid by FIP.
3. Assigned drivers may permit others to drive their vehicle with these conditions:
 - a. Limited, incidental usage.
 - b. All drivers must be 25 years of age and carry a valid driver's license.
 - c. The assigned driver is responsible for the vehicle at all times and is accountable for the actions of other drivers.
4. The company vehicle is assigned for business use and any other use must be limited.
5. Assigned drivers must maintain a driving/mileage log and may be liable for a non-business use tax per IRS regulations.
6. Annual motor vehicle records may be requested for each assigned driver. These records would be used to determine if an assigned driver has a relatively violation-free driving record.
7. Drivers and passengers will wear safety belts.

FIP employees are required to drive and use company vehicles in a manner that conforms with all Town, City, State, and Federal laws. Driving behaviors should be courteous and defensive.

8.0 TECHNICAL POLICY BULLETINS

8.1 PERSONAL PROTECTION EQUIPMENT

Personal protection equipment includes any safety appliance that is used to prevent personal injury. This equipment is given to each new employee. Employees acknowledge receipt of the equipment by signing a receipt form.

Field employees are assigned at no cost a hard hat, clear safety glasses, rain gear, gloves, and other appliances as required. Any safety appliance that is damaged during the course of work is replaced at no charge. Employees who misplace or fail to return their equipment at the termination of their employment may be charged for the replacement of the equipment.

Generally, new employees are experienced and have had previous training in how and when to use the equipment. Any untrained worker receives instruction. Regular and ongoing instruction also occurs throughout the organization. Safety meetings, safety materials, audio visual presentations and safety professionals are used for training.

The Safety Director purchases personal protection equipment from reputable manufacturers and vendors. All equipment is stored at the shop and is inspected by a Competent Person before distribution. This same inspection process also occurs with other equipment that may have a direct or indirect relationship upon safety. For example, all electrical equipment is checked before being issued to the field. Any equipment that is defective and not repairable is removed from service. Likewise, equipment with diminished effectiveness is also removed from service.

FIP provides a generous budget for the purchase of personal protection equipment. Without compromise, only top quality equipment is purchased and distributed to employees.

Only FIP personnel shall use FIP's personal protection equipment. All contractors must supply their own equipment.

8.2 HOUSEKEEPING

FIP recognizes that conscientious housekeeping efforts can prevent accidents. A clean job site also presents a positive image for our employees, clients, and the public.

Key Housekeeping Considerations

1. Provide receptacles for trash.
2. Walkways, aisles, and landings will be clear of loose materials, tools, and debris.
3. All work areas will be clean and organized. Routine housekeeping will be performed daily.
4. Wet and slippery conditions will be removed when possible.
5. All flammables and compressed gas cylinders will be properly stored and tied off when appropriate.
6. Employees will be assigned routine housekeeping assignments. Generally, apprentices and laborers will perform this duty.
7. Housekeeping checklists will be used as needed.

GOOD HOUSEKEEPING IS GOOD BUSINESS!

8.3 FIRE PROTECTION & PREVENTION PROGRAM

For all buildings under construction by FIP, the following shall be required:

- A fire extinguisher, rated not less than 2A:10B,C shall be provided for each 3,000 square feet (or major fraction thereof) of the protected building area.
- Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet.
- Fire extinguishers shall be inspected once a month and signed on the tag by the Superintendent or Safety Representative and maintained by the equipment manager.
- A fire extinguisher rated not less than 2A:10B,C shall be provided at all stairways.
- An extinguisher shall be located at the entrance of every storage trailer (fire extinguisher supplied by contractor using storage trailer).
- All extinguishers shall be conspicuously located.
- Any fire extinguisher that has been discharged shall be replaced immediately.
- No tampering with or unauthorized removal of fire extinguishers from assigned locations.
- Observe "No Smoking" rule in posted areas.
- Good housekeeping practices are required.
- No equipment, gas-powered tools, vehicles, etc. shall be refueled while engine is running.

Inspection and Maintenance

- All FIP's fire extinguishers shall be inspected weekly by FIP's Project Superintendent.
- FIP's Safety Director shall maintain extinguishers which belong to FIP.
- Subcontractors shall maintain their extinguishers in the same manner as FIP.
- Each Subcontractor's Competent Person shall inspect all their fire extinguishers at least once a week.
- Inspection tags from an approved fire equipment supplier shall stay on the extinguisher.
- Fire extinguishers must be re-inspected by an approved fire equipment supplier after inspection date on tag exceeds one year.
- All discharged or defective equipment shall be removed from the site immediately.

Fire Alarm/Signal

The emergency alarm system is used to mobilize field personnel during emergency situations. FIP Construction, Inc. will review this policy with each subcontractor. Subcontractors are then required to review this policy with their own personnel and inform them of the different emergency signals. All subcontractors are required to have a head count of all individuals placed in their charge each and every morning. During an emergency situation, all personnel will meet at the pre-designated muster area location as established by the FIP Project Superintendent.

The different signals of the emergency action plan are as follows:

- One (1) blow of air horn: Alert all qualified first aid personnel.
- Two (2) blows of air horn: Alert all foremen of all trades.
- Three (3) blows of air horn: All personnel must evacuate the building.

Evacuation Routes

Due to the ever-changing conditions on a construction site, having a standard evacuation route is almost impossible. For the safety of FIP's subcontractors, FIP's Project Superintendent shall implement the following procedures:

- All exits will be clearly marked with signage.
- If an exit is blocked due to work in the area, rerouting signs shall be in place.
- At no time will all the exits be blocked off due to work.
- Maintain egress from the building at all times.

- All employees shall receive instructions at the orientation to meet at the job trailer during an emergency evacuation.
- Subcontractors are required to keep a daily head count of their personnel and stay at the job trailer until a complete head count has been taken.

Fueling of Equipment

When fueling or refueling of equipment or vehicles, the danger of a static charge is great. To reduce this hazard the following should be used:

- When a plastic funnel is being used to transfer fuel, a grounding strap shall be used that connects the metal fuel storage container to the piece of equipment.
- When a fuel tank is made from a plastic-type material, the fuel container must be grounded to the piece of equipment.
- No grounding or bonding is needed when a metal fuel nozzle is placed into a metal filler hole and making contact with the fuel tank.
- All gas-powered tools, vehicles and equipment shall be shut off during re-fueling operations.

Open Yard Storage

- Combustible material shall be stable and not stacked over 20' high.
- Driveways between materials must maintain a 15' wide clearance.
- Storage areas to be free from accumulation of unnecessary combustible material.
- Portable fire extinguishing equipment, suitable for the fire hazard involved, shall be provided at convenient, conspicuously accessible locations in the yard area.
- Portable fire extinguishers, rated not less than 2A, shall be placed so that maximum travel distance to the nearest unit shall not exceed 100'.
- No combustible material shall be stored outdoors within 10' of a building or structure.

Indoor Storage

- Storage shall not obstruct, or adversely affect, means of exit.
- Non-compatible materials, which may create a fire hazard, shall be segregated by a barrier having a fire resistance of at least one (1) hour.
- Material shall be piled to minimize the spread of fire internally and to permit convenient access for firefighting.
- Stable piling shall be maintained at all times.
- All materials shall be stored, handled and piled with due regard to their fire characteristics.
- Clearance shall be maintained around lights and heating units to prevent ignition of combustible materials.
- Material shall not be stored within 36" of a fire door opening.
- No more than 25 gallons of flammable or combustible liquid can be stored in one room.
- Propane storage is not allowed in the building.

Flammable/Combustible Liquid Tank Storage

The storage and use of flammable and combustible liquids on the job is an ever-increasing hazard in construction. Equipment fuels, heating fuels, flammable solvents, paints, and adhesives are among those liquids that require definite control and safeguarding. These controls include proper location of storage tanks, approved safety cans for storage and dispensing, and adequate ventilation.

- Approved safety cans or Department of Transportation approved containers shall be used for the handling and use of flammable liquids in quantities of 5 gallons or less.
- Flammable liquid materials which are highly viscous (extremely hard to pour), which may be used and handled in original shipping containers.
- Flammable or combustible liquids shall not be stored in areas used for exits, stairways, or normally used for the safe passage of people.

- No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet.
- Not more than 60 gallons of flammable or 120 gallons of combustible liquids shall be stored in any one storage cabinet.
- Not more than three such cabinets may be located in a single storage area.
- A fire extinguisher rated not less than 20:B shall be provided.
- Storage of containers (not more than 60 gallons) shall not exceed 1,100 gallons in any pile.
- Any storage pile shall be at least 20' from the building.
- All outside bulk fuel storage tanks must be provided with a spill containment system.
- LP tanks shall not be stored inside the building.
- Storage of LP tanks, 500 to 6,000 pounds, must be at least 10' from the building.
- LP tanks are to be stored in a corral chained and "No Smoking" signs must be posted.
- Storage locations shall be provided for at least one approved fire extinguisher not rated less than 20 B:C.
- All equipment fueling areas shall provide one fire extinguisher not rated less than 20 B:C.

Hazard Recognition

There are four components needed to start a fire (Fire Tetrahedron: Fuel, Heat, Reaction, and Oxygen). To eliminate a potential fire hazard, you must remove one of the components.

Cutting and welding sparks cause more construction fires than any other ignition source. FIP's Superintendent should make sure that adequate precautions are taken during these sessions. A fire watch with a fire extinguisher should be kept at each location of cutting or welding. Fire watchers shall stay at their locations at least 30 minutes after cutting has been completed to look for any signs of ignition.

Training

As a General Contractor, FIP does not train our subcontractors to be part of a fire brigade. FIP prefers all personnel to evacuate the building and let the professional fire rescue department fight the fire.

All FIP employees have basic knowledge of the operation of portable fire extinguishers and application.

During pre-construction orientation, FIP's subcontractors are instructed where they have access to a telephone with all emergency phone numbers, location of the job site and fire extinguishers.

Enforcement

FIP recognizes the severity of fire on its job sites. Any operation that might produce a fire hazard will be investigated prior to start of operation. All hazards will be investigated and engineered out (if possible). Portable protection shall be in place with a qualified person, determined by the subcontractor.

FIP's Project Superintendent can and will stop all operations if hazards exist and proper precautions have not been taken.

TYPICAL FIRE SAFETY CHECKLIST
(Self-Inspection Form for Construction Work)

Adequate protective equipment and planning for fire emergencies helps keep small fires small, limits losses.

YES	NO	CONDITION
		HOUSEKEEPING
<input type="checkbox"/>	<input type="checkbox"/>	Are construction materials stored in an orderly manner?
<input type="checkbox"/>	<input type="checkbox"/>	Is combustible scrap and trash removed from the site regularly?
<input type="checkbox"/>	<input type="checkbox"/>	Are metal containers with covers provided for disposal of oily or paint-soaked rags?
		SMOKING
<input type="checkbox"/>	<input type="checkbox"/>	Are NO SMOKING signs posted in hazardous areas?
<input type="checkbox"/>	<input type="checkbox"/>	Are NO SMOKING regulations enforced?
		ELECTRICAL
<input type="checkbox"/>	<input type="checkbox"/>	Is temporary wiring installed according to the provisions of the National Electrical Code?
<input type="checkbox"/>	<input type="checkbox"/>	Is wiring, including connections to junction boxes, panels, equipment, and the like, in good condition?
<input type="checkbox"/>	<input type="checkbox"/>	Are overcurrent protective devices (fuses, circuit breakers) in good operating condition?
<input type="checkbox"/>	<input type="checkbox"/>	Are ground fault circuit interrupters (GFCI) provided where required?
		WELDING AND CUTTING
<input type="checkbox"/>	<input type="checkbox"/>	Are any welding, cutting, or brazing operations in progress?
<input type="checkbox"/>	<input type="checkbox"/>	Are any combustible material exposed by these operations?
<input type="checkbox"/>	<input type="checkbox"/>	Is a fire watch provided during, and for at least 30 minutes after, these operations?
<input type="checkbox"/>	<input type="checkbox"/>	Is portable fire extinguisher or small hose protection available where these operations are carried on?
		TEMPORARY HEATERS
<input type="checkbox"/>	<input type="checkbox"/>	Are temporary heaters in use of "approved" type?
<input type="checkbox"/>	<input type="checkbox"/>	Is sufficient clearance maintained between heaters and combustible materials?
<input type="checkbox"/>	<input type="checkbox"/>	Is a competent (licensed, where required) person responsible for temporary heating operations?
<input type="checkbox"/>	<input type="checkbox"/>	Are fuel storage and refueling arrangements satisfactory?
		FLAMMABLE-COMBUSTIBLE LIQUIDS
<input type="checkbox"/>	<input type="checkbox"/>	Are flammable-combustible liquids stored and dispensed in a satisfactory manner?
<input type="checkbox"/>	<input type="checkbox"/>	Is adequate ventilation provided where flammable adhesives, paints, solvents, and other chemicals, are in use?
<input type="checkbox"/>	<input type="checkbox"/>	Are roofing operations involving tar kettles supervised by a competent person?
<input type="checkbox"/>	<input type="checkbox"/>	Are tar kettles in use equipped with metal covers?
<input type="checkbox"/>	<input type="checkbox"/>	Are asphalt-saturated roofing mops removed from the building and safely discarded after use?
		EXITS
<input type="checkbox"/>	<input type="checkbox"/>	Are fire exits unobstructed, including access ways and discharge areas?
<input type="checkbox"/>	<input type="checkbox"/>	Are all exits clearly marked?
<input type="checkbox"/>	<input type="checkbox"/>	Are exits adequately lighted?
<input type="checkbox"/>	<input type="checkbox"/>	Are stair exit fire doors in good operating condition?
<input type="checkbox"/>	<input type="checkbox"/>	Is adequate egress provided from uppermost work areas?
		EXTINGUISHERS AND SMALL HOSE
<input type="checkbox"/>	<input type="checkbox"/>	Are sufficient portable extinguishers of the proper type provided throughout?
<input type="checkbox"/>	<input type="checkbox"/>	Are extinguishers and small hoses kept in good operating condition?

YES	NO	CONDITION
<input type="checkbox"/>	<input type="checkbox"/>	Is equipment unobstructed and its location highlighted?
<input type="checkbox"/>	<input type="checkbox"/>	Is equipment protected against freezing?
<input type="checkbox"/>	<input type="checkbox"/>	Are selected personnel trained to operate extinguishers and small hose?
		SPRINKLERED SYSTEMS
<input type="checkbox"/>	<input type="checkbox"/>	Is sprinkler installation progressing with construction?
<input type="checkbox"/>	<input type="checkbox"/>	Are sprinkler control valves accessible, labeled and open where necessary?
<input type="checkbox"/>	<input type="checkbox"/>	Are systems adequately protected against freezing?
<input type="checkbox"/>	<input type="checkbox"/>	Are sprinkler alarms in service?
<input type="checkbox"/>	<input type="checkbox"/>	Are sprinkler system pumper connections clearly marked and accessible to the public fire department?
<input type="checkbox"/>	<input type="checkbox"/>	Is the public fire department familiar with the sprinkler installation?
		HYDRANTS
<input type="checkbox"/>	<input type="checkbox"/>	Are hydrants unobstructed and accessible to the public fire department?
<input type="checkbox"/>	<input type="checkbox"/>	Are hydrants in good operating condition?
		STANDPIPES
<input type="checkbox"/>	<input type="checkbox"/>	Are standpipe systems installed and in service up to the highest level of construction operations?
<input type="checkbox"/>	<input type="checkbox"/>	Are standpipe system hose connections unobstructed and accessible to the public fire department?
<input type="checkbox"/>	<input type="checkbox"/>	Are standpipe systems adequately protected against freezing?
<input type="checkbox"/>	<input type="checkbox"/>	Are standpipe system pumper connections clearly marked and accessible to the public fire department?
		FIRE ALARMS
<input type="checkbox"/>	<input type="checkbox"/>	Is a standard procedure established for reporting a fire to the fire department?
<input type="checkbox"/>	<input type="checkbox"/>	Are all workers instructed in this procedure?
<input type="checkbox"/>	<input type="checkbox"/>	Is an audible alarm in operation to alert workers of a fire on the site?
<input type="checkbox"/>	<input type="checkbox"/>	Is there a public fire alarm pull box located nearby?
<input type="checkbox"/>	<input type="checkbox"/>	Has the public fire department visited the site during the past month?
		WATCHMEN-GUARDS
<input type="checkbox"/>	<input type="checkbox"/>	Is watch service provided during all non-operating hours?
<input type="checkbox"/>	<input type="checkbox"/>	Does service cover the entire project site?
<input type="checkbox"/>	<input type="checkbox"/>	Are watchmen-guards instructed in the fire reporting procedure?
		CONSTRUCTION OFFICES, TRAILERS, SHEDS
<input type="checkbox"/>	<input type="checkbox"/>	Are combustible offices, trailers and sheds located at least 30 feet (10 m) away from major buildings and materials storage?
<input type="checkbox"/>	<input type="checkbox"/>	Are heating devices in offices, trailers, and sheds of an "approved" type?
<input type="checkbox"/>	<input type="checkbox"/>	Are heating devices properly installed and vented?
<input type="checkbox"/>	<input type="checkbox"/>	Are fuel cylinders and fuel lines for heating devices protected against vehicular damage?
		TARPAULINS
<input type="checkbox"/>	<input type="checkbox"/>	Are tarpaulins used for temporary enclosure of building construction?
<input type="checkbox"/>	<input type="checkbox"/>	Are tarpaulins in use of the flame-resistant type?
<input type="checkbox"/>	<input type="checkbox"/>	Are tarpaulins in use tightly secured to prevent contact with ignition sources such as temporary heaters?

FIRE EXTINGUISHER CHART

Fire Extinguisher Selection Chart

Type	STD. Dry Chemical	A.B.C. powder	Purple "K" powder	Water pump tanks	Water Pressure	Carbon Dioxide	Halon 1211
Paper-wood-cloth-rubbish-combustibles	Surface Fires Only	Yes Excellent	Surface Fires Only	Yes Excellent	Yes Excellent	Surface Fires Only	Yes
Volatile Liquids Gas-Oil-Paint-Etc.	Yes Excellent	Yes Excellent	Yes Excellent	NO	NO	Yes Excellent	Yes Excellent
Electrical Panels-Motors apparatus, Etc.	Yes Excellent	Yes Excellent	Yes Excellent	NO	NO	Yes Excellent	Yes Excellent
Capacity	2.75 LBS 5 LBS 10 LBS 20 LBS 30 LBS	2.5 LBS 5 LBS 10 LBS 20 LBS 30 LBS	5 LBS 10 LBS 20 LBS 30 LBS	2 GAL. 4 GAL.	2 GAL.	5 LBS 10 LBS 15 LBS 20 LBS	1 LBS 3.5 LBS 7 LBS 17 LBS
Operating Method	Break seal Pull pin Squeeze handle	Break seal Pull pin Squeeze handle	Break seal Pull pin Squeeze handle	Operate Pump	Break seal Pull pin Squeeze handle	Break seal Pull pin Squeeze handle	Break seal Pull pin Squeeze handle
Fire fighting agent	Standard powder	All purpose powder	Purple "K" powder	Water	Water	Carbon Dioxide	Halon 1211
Approximate Horizontal range	5 - 20 ft.	5 - 20 ft.	5 - 20 ft.	40 - 50 ft.	40 - 55 ft.	3 - 10 ft.	8 - 12 ft.
Approximate Discharge time	8 - 28 sec.	8 - 28 sec.	8 - 28 sec.	1 - 2 Min.	1 Minute	8 - 30 sec.	10 - 18 sec.
Hydrostatic Min. Test Interval	See NFPA No. 10	See NFPA No. 10	See NFPA No. 10		See NFPA No. 10	See NFPA No. 10	See NFPA No. 10

		<table border="1"> <thead> <tr> <th>Class</th> <th>Type of Fires</th> </tr> </thead> <tbody> <tr> <td>Class A</td> <td>For Wood, Paper, Cloth trash and other ordinary combustibles.</td> </tr> <tr> <td>Class B</td> <td>For Gasoline, Greases, Oil, Paints and other flammable Liquids</td> </tr> <tr> <td>Class C</td> <td>For live electrical equipment. WATER WILL CAUSE A DANGER OF SEVERE ELECTRICAL SHOCK</td> </tr> </tbody> </table>	Class	Type of Fires	Class A	For Wood, Paper, Cloth trash and other ordinary combustibles.	Class B	For Gasoline, Greases, Oil, Paints and other flammable Liquids	Class C	For live electrical equipment. WATER WILL CAUSE A DANGER OF SEVERE ELECTRICAL SHOCK
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	Class A	For Wood, Paper, Cloth trash and other ordinary combustibles.								
	Class B	For Gasoline, Greases, Oil, Paints and other flammable Liquids								
Class C	For live electrical equipment. WATER WILL CAUSE A DANGER OF SEVERE ELECTRICAL SHOCK									

The label on the extinguishers shows one or more of the above symbols designating the type of fires on which this extinguisher should be used. Pictographic operating instructions are shown on the label, understand these before using the extinguisher.

8.4 ELECTRICAL SAFETY PROGRAM

This technical policy bulletin is intended to describe a program required for OSHA compliance, 29 CFR 1926.404(b)(1)(i).

The regulations require use of an assured equipment grounding conductor program or ground fault circuit interrupters (GFCI) for all 120 volt, 15 to 20 ampere branch circuits within a construction site. A branch circuit is defined as the circuit conductors between the final overcurrent device protecting the circuit and the receptacle. This policy is intended to provide a level of electrical safety throughout all phases of construction.

General Electrical Requirements

- All construction personnel shall be orientated on hazards associated with electrical equipment.
- Tool boxes, material and debris shall maintain a minimum clearance of 3' around electrical panels, receptacles and equipment.
- All temporary power and light panels shall have lockable covers and remain locked unless a qualified electrician is working on the panel.
- Before permanent power can be turned on, all electrical rooms shall have a locking door. The door shall remain locked unless a qualified electrician is working in that space.
- All electrical rooms/closets must have signage on the door saying "*Energized Equipment.*" (No "*Unauthorized Personnel Keep Out*" or similar sayings).
- Extension cords shall be protected from pinch points using wood, rubber or other non-conductive material.
- Extension cords must be made for heavy duty or extra heavy duty. NEC specified are cords with a stamped lettering starting with ST, SO, SJ, S.
- All cords must have a ground prong.
- Cords crossing heavy traffic walk/work surfaces shall be protected by damage using a ramp/bridge or suspend. If suspending, a cord made for that purpose must be used.
- Electrical receptacles, light sockets, etc. shall be securely mounted.
- Only a qualified electrician can remove and relocate temporary lighting and receptacles.
- The electrical subcontractor shall maintain enough receptacles for contractors throughout the job. This will eliminate overloading of circuits.
- All energized panels shall be locked to prevent access by unauthorized personnel.
- Only a qualified electrician can hold a key to unlock an energized panel.
- The electrical subcontractor shall follow the requirements in CFR 1926.417 for lock out/tag out procedures.
- All circuit breakers will be clearly marked.
- Temporary lighting shall be on a circuit separate from receptacles [CFR 1926.405(c)].
- Used and unused knockouts will be properly closed at all times.
- All energized receptacles and switches shall be covered by faceplates.
- Temporary lights in hazardous work areas (where framing will be within a few feet of temporary light cord and pose a hazard of being hit by a metal stud) shall conform to NEC specification for hard or extra-hard cords.
- Temporary lighting shall be suspended by hangers provided by the manufacturer and not by the cord unless the cord is made for that purpose.
- All temporary lights will be maintained by the electrical subcontractor (light cages, bulbs).
- Lighting at stairways, egress ways and general construction areas shall be maintained at a minimum of 5 foot-candles at all times.
- Any tools used in energized or hazardous areas must be made for that purpose.

Type of Ground Protection

FIP uses ground fault circuit interruption devices on all of our projects. All receptacles for temporary power for tool usage shall have GFCI protection. GFCI protection shall start at the power source so that all extension cords are protected. There are a number of avenues to provide for ground fault circuit interruption as follows:

- A combination circuit breaker/GFCI installed in the service entrance equipment panel that protects all outlets on that branch circuit;
- A permanently-installed GFCI receptacle to replace the standard receptacle outlet;
- A portable-type GFCI device that plugs directly into an existing receptacle outlet.

Testing Performed only by Competent Person

The Competent Person is defined by OSHA as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them."

Contractor's Competent Person shall test their own portable GFCI devices when being used.

The electrical contractor will designate a Competent Person to test GFCI receptacles on site. (only the receptacles installed for temporary power).

Testing Protocol

GFCI receptacle testing shall be conducted and recorded at the following times:

- Before first use;
- After any repair or after a suspected-damage incident;
- Then tested within 3-month periods.

Daily Inspections

Before each use, cord-connected equipment shall be visually inspected for external defects such as, but not limited to:

- Deformed or missing ground pins;
- Insulation damage;
- Indication for possible internal damage;
- Cracked tool case;
- Equipment found to be damaged or defective shall not be used until repaired and tested.

Testing Equipment

- Equipment used to test GFCI receptacles and cords by a Competent Person shall have the capability to test for continuity and ground fault, but not limited to tester described.
- Plug in GFCI tester with high visibility lamps to test correct wiring and a test button to intentionally overload the actual GFCI receptacle.
- The same tester described above has the capability to test cords.

Lock-out/Tag-out

During the course of construction, temporary power and lighting circuits may need to be replaced or removed. The electrical subcontractor is the only qualified subcontractor to perform such work. Under the FIP Safety Program, all live temporary and permanent electrical panels must be kept closed and locked unless a qualified electrician is working on the panel. Only the electrical subcontractor's Competent Person shall have a key. The electrical subcontractor shall conform to the procedure discussed above and to OSHA's CFR 1926.417 requirements:

- Circuits and equipment which are deactivated during the course of work shall be tagged.
- Circuits and equipment which are de-energized shall be rendered inoperative and be tagged at all points where the circuit or equipment can be energized.
- Tags shall be placed to identify circuits or equipment being worked on.

Enforcement Procedures

- All GFCI receptacles that do not pass the testing procedures shall be locked out and tagged out. Repairs shall be made immediately and tested so power can be restored.
- All extension cords which do not pass daily inspection and/or testing shall have the connector end cut off to eliminate usage until repaired to NEC specifications. If the Competent Person finds that the cord is beyond repair, the cord shall be disposed.
- The FIP's *Three-Strike Policy* shall be implemented to any employer or employee who fails to comply with this program.

8.5 BLOOD-BORNE PATHOGENS EXPOSURE PROGRAM

An exposure (at minimum) consists of any situation where an individual(s) has been contacted by blood or bodily fluids directly onto his/her non-intact skin, eyes or mouth.

- All employees receive an orientation on the risk of exposure.
- Gain knowledge on determining where exposure can happen.

FIP RELIES ON PROFESSIONAL RESCUE PERSONNEL FOR ANY MAJOR INCIDENT. We keep a small first aid box on all projects with the proper PPE's if needed. All subcontractors of FIP are required to maintain a first aid box with the proper PPE's.

General procedures for eliminating exposure at construction sites:

- All employees receive an orientation on the risk of exposure.
- Gain knowledge on determining where exposure can happen.
- Engineer controls to eliminate hazards (such as using proper PPE's).
- Let someone who has training and knowledge perform the tasks.
- Wear proper PPE to eliminate the hazard.
- Assume anyone may have HIV/HBV.
- No incident is too small.
- If exposed, report immediately.
- All reports will be kept confidential.
- Plan shall be kept on site in the FIP construction trailer.

Determining Exposure

All personnel on FIP projects may be exposed. Employees who respond to first aid functions have the highest risk. In most cases, professional medical responders will aid the injured. Other tasks that may pose a potential exposure include, but are not limited to:

- Employees who clean up the job site.
- Employees who respond to a minor first aid situation or performing CPR.
- Employees who help patch up minor cuts, scrapes, burns, etc.
- Employees who have non-intact skin (i.e. skin with dermatitis, hangnails, cuts, abrasions, chafing, uncovered wounds, etc.).

Risk Reduction

In order to reduce the risk of exposure, some controls should be used. Some of these controls are, but not limited to the following:

- Wearing proper PPE's (i.e. latex gloves, eye protection, etc.).
- Gloves around sharp or potentially sharp objects.
- Eye protection.
- Let a trained rescuer perform first aid.
- Proper PPE's even for minor first aid applications.
- Hepatitis vaccination (note: FIP offers their employees Hepatitis vaccinations).

Disposal of Contaminated Materials and Decon

FIP has always relied on Professional Rescue Personnel for any bio-hazard clean up. FIP has a small spill clean-up kit located in the project trailer. All bio-hazard material must be placed into a red bio-hazard bag and be disposed properly (not in regular rubbish container).

Availability of PPE's

FIP does not supply PPE's for the subcontractors. As stated in our Health and Safety Policy, all subcontractors shall provide their employees with the proper PPE's for tasks being performed.

Training

FIP's Project Superintendent has had basic first aid training and CPR training instructed by The American Red Cross. FIP does not provided First Aid training to any subcontractor. We suggest subcontractors have one trained person on our projects. If a subcontractor provides training to their employees, the following shall be provided:

- Training shall be provided by The American Red Cross or equivalent.
- Be trained on Blood Borne Pathogens and the procedures to prevent exposure.
- Use of PPE's (i.e. gloves, shields, exposed skin).
- Availability of PPE's.
- Update training (first aid every 3 years).
- Proof of training certificate (wallet card).
- Roster of trained employees on site.

Enforcement

FIP's Project Superintendent will stop any untrained employee from providing rescue, first aid, or working in an exposure zone.

8.6 HEARING CONSERVATION PROGRAM

General Procedures

- Identify hazardous noise environments.
- Subcontractors to provide employees with proper protection.
- Plain cotton is not an acceptable protective device.
- Only those devices with a noise-reduction rating are acceptable protective devices.
- Most ear protection can be reused if maintained correctly.
- All in-ear protective devices shall be fit tested by the subcontractor's competent person.
- Subcontractor working in environments with noise levels over 90 dB shall wear hearing protection devices.

Monitoring

On FIP's construction sites, the use of hearing protective devices shall be used if noise levels go beyond the permissible noise exposure level (90 dB). FIP's subcontractors are responsible to monitor the work area to determine employee exposure. The procedure for measuring sound pressure levels shall be:

- Locate source of potential sound hazards.
- Using a digital sound level meter, Extech Instruments Model 407730, measure sound pressure levels and determine dB levels.
- Protection against noise levels shall be provided when dB levels exceed those shown in Table D (below) when measured on the A-scale of a standard sound meter at slow response.
- If hazards exist, eliminate unsafe noise level or require workers in area to have proper hearing protection.

Sound level meters will be used to periodically measure noise levels in areas subject to high levels or intermittent noise. The noise levels and exposure can be calculated from the eight-hour time weighted average, but FIP suggests the use of hearing protection any time sound levels exceed 90 dB.

The following activities being performed at job sites usually require hearing protection:

- Using masonry saws
- Using masonry mixers
- Powder actuated tools (Hilti guns, Ramset)
- Using chop saws
- Using jack hammers, chipping hammers
- Using hammer drilling tools

DURATION PER DAY (HOURS)	SOUND LEVEL DBA SLOW RESPONSE
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
¼ or less	115

Types of Hearing Protection

- Reinforced plastic earmuffs with noise reduction rating (NRR) between 24 and 29 dB.
- Reusable self-adjusting foam earplugs with NRR between 21 dB and 30 dB.
- Most ear protection can be reused if maintained correctly.
- Must reduce noise level exposures below 90 dB.

Limitations

The amount of protection depends on the type of protectors used, fit, noise exposed and if user consistently wears them. For effectiveness, hearing protectors must be carefully selected. The NRR on hearing protection devices are divided by two for reducing dB levels (i.e. A 30 dB NRR device actually reduces the noise level 15 dB).

Audiometric Testing

Subcontractors of FIP whose employees are exposed to workplace noise above the permissible exposure limits are required to provide audiometric testing. Subcontractors shall have the following:

- Obtain a baseline.
- Provide annual testing.
- Record keeping of test results for each exposed employee.

Training

Employee exposed to work in high-level noise areas should be included in an initial and annual training program outlined in CFR 1910.95 (occupational noise exposure).

Training Coverage

- When to use hearing protection.
- Proper selection, fitting use and care of hearing protection.
- Reasons and benefits for wearing ear protection.

9.0 SAFETY RULES FOR ALL FIP EMPLOYEES AND SUBCONTRACTORS' EMPLOYEES ON ALL FIP'S JOBS

All personnel have a responsibility to themselves, to their fellow workers and the public. These Safety Rules apply to all personnel on all FIP's projects. Special additional rules may be added and established by your supervisor.

9.1 GENERAL RULES

- All employees are required to participate in FIP's safety orientation prior to working on the job site.
- **Subcontractor's non-English-speaking employees must be provided with an interpreter during the safety orientation. All non-English-speaking employees must be teamed with an interpreter in case of emergency.**
- Upon completion of safety orientation, a sticker will be issued to each employee. No worker will be allowed on site without a safety sticker on his or her hard hat.
- Subcontractor's designated competent person/foreman is required to register all workers at the safety orientation as either an employee, subcontractor or 1099 worker.
- All workers must submit a Federal or State picture I.D. at the time they are registered. No worker will be allowed on site without proper identification.
- All persons on the job are required to wear hard hats and adequate eye protection on FIP projects.
- Report unsafe conditions or unsafe acts to appropriate supervisory personnel.
- Report all injuries, regardless of how slight, to appropriate supervisory personnel.
- Horseplay on the job is prohibited.
- Report unsafe tools, defective or frayed electrical cords and unguarded machinery to supervisory personnel.
- Observe "No Smoking" rules in posted area.
- Tampering with or unauthorized removal of fire extinguishers from assigned locations is prohibited.
- Do not work under lifted loads.
- Personnel are not permitted to use or possess any intoxicants or drugs on FIP's property or to be under the influence of any intoxicants or drugs while on the job. Violation of this rule will result in immediate termination and/or removal from the job.
- Good housekeeping practices are required.
- Observe health and sanitation rules.
- Lift heavy objects correctly (secure footing, firm grip, back straight, and lift with legs). Get help as needed.
- Direct questions or suggestions about safety or safety equipment to appropriate supervision.
- No radios allowed in the workplace.

9.2 JOB SITE RULES

- Harassment of any type, nature or form directed at any individual or group will not be condoned nor tolerated. Observance of such will result in immediate removal from the project for offending individuals.
- All safety and security procedures and regulations must be strictly adhered to while on site.
- Smoking is permitted only in designated areas.
- Possession of and/or usage of alcohol, drugs or any other mind-altering substances are strictly prohibited. Observance of such will result in immediate removal from the site and prosecution to the fullest limits of the law.

- Fighting or any other incidents that place an individual in a position of potential harm will result in the immediate removal of the offending individual from the property and termination of employment for that person on all FIP projects.
- Abusive language and/or profanity are prohibited.
- Radios, tape players or any other devices which generate noise for entertainment purposes are prohibited on site. All work-related equipment must have their noise reduction devices in proper working condition and function as designed. Reduction of any excess noise should be everyone's goal.
- Hard hats, safety glasses and leather work boots must be worn at all times within the construction area. Hard hats must have the appropriate safety rating, and be free of defects and/or alterations.
- Proper and appropriate attire shall be worn at all times in the work areas. Minimum acceptable attire shall be hardhat, shirt with sleeves (4" minimum), long pants and sturdy leather work boots. *UNACCEPTABLE ATTIRE* on site is as follows: Cutoffs, short pants, tank tops, sweat pants, nylon "weed" pants, tennis shoes, clothing printed with abusive, offensive or profane language.
- Complete compliance to all OSHA regulations.
- Usage and/or occupancy of any Owner's property outside the project boundaries is expressly prohibited without the permission of the Owner or FIP's Project Superintendent.
- Construction vehicles with appropriate insurance coverage will be allowed on site.
- Firearms and weapons of any type are prohibited on Owner's property.
- Any act of vandalism, theft or damage will result in termination and prosecution of the offending individual.
- Discrimination in any manner will not be tolerated.
- Any work activity or incident that places an individual in potential harm will immediately be stopped and corrected prior to recommencing work.
- Compliance to all regulatory agents and their requirements is mandatory.

9.3 PERSONAL PROTECTION

Head Protection

- Hard hats shall be worn by everyone on the job at all times.
- Trades with welding operations shall provide a hard hat mount welding shield to their personnel to meet FIP's hard hat requirements.

Eye and Face Protection

- Proper eye protection shall be worn by all employees at all times.
- Face and respiratory protection or equipment shall be worn when employees are exposed to flying particles, dust, lack of oxygen content in the air, or exposed to hazardous gasses or fumes above the permissible exposure limits set forth by regulatory agencies.
- Eye protection shall be worn when sledging, hammering, or sawing on metal or concrete, chipping, welding, grinding, working in dusty places, handling chemicals, peening or other operations where eye injuries may result. Never watch welding operations without proper eye protection.

Foot Protection

- Safety shoes are encouraged. Sturdy, heavy-duty work shoes are required. Canvas, sandals, sneakers or other street-type shoes shall not be worn even if they have steel toes.

Noise Protection

- Ear protection in the form of ear muffs or approved ear plugs shall be worn in all high-noise work environments.

High Visibility Attire

- Every worker, site staff, visitor and vendor will wear attire at all times which meets the requirements of ANSI 107-2004.
- When work is being conducted in traffic areas, either public or construction equipment or at night, ANSI reflectivity requirements shall be met.
- A flag person along with all employees working in the immediate area of vehicular traffic must wear a Class 2, high-visibility jacket or vest. The flag person will be required to use a flag and/or sign paddle to direct traffic flow. Warning garments worn at night shall be reflective. Traffic control laws must be adhered to (please contact Safety Director). In some cases Class 3 attire shall be worn. Consult with the ANSI classification requirements.

Work Attire

- Proper clothing for all duties to be performed shall be worn by everyone. Large pockets, loose flowing ties, finger rings, exposed watches or key chains, cuffed trousers, loose or torn clothing are dangerous and must not be worn around machinery or when climbing ladders or working structures.
- Shirts covering the entire torso with a 4" sleeve (minimum) shall be worn on the job site at all times. No tank tops, cutoff shirts or halters shall be worn.
- Full length trousers shall be worn on the job at all times. No shorts, sweatpants or nylon athletic pants shall be worn; these offer no protection from lacerations.
- Welders and trade personnel working in hot work shall have the proper protective attire for the operation being performed.
- Personnel working around moving equipment are required to wear sensible clothing. Personnel are also cautioned about the dangers of loose clothing, rings, bracelets, and other jewelry around moving equipment and machinery.

Hand Protection

- Work gloves shall be worn when handling rough edges or abrasive material when the work subjects the hands to lacerations, punctures, or burns.

9.4 RESPIRATORY PROTECTION PROGRAM

Face and respiratory protection or equipment shall be worn when employees are exposed to flying particles, dust, lack of oxygen content in the air, or exposed to hazardous gases or fumes above the permissible exposure limits set forth by regulatory agencies.

This program highlights respiratory protection as described in the OSHA 29 CFR 1910.134 which covers respiratory protection for construction. FIP's employees shall conform to all OSHA standards and FIP's procedures at all times.

General Policy

Employees of FIP are not allowed in conditions where respiratory protection is required. To eliminate the need for respiratory protection for our employees, FIP requires the use of engineered controls before employees start their tasks. We will train and supply our employees with disposable filter masks for employees who like to wear protection even though it is not needed (Appendix D).

General Procedures

- Proper engineering and administrative controls shall be implemented to reduce the need for respiratory protection.
- All employees of FIP using disposable filter masks must go through proper training and sign off on training prior to voluntary usage.
- Proper respirator shall be used for environmental condition.
- Personnel shall have no facial hair when using half masks.

- All areas needing respiratory protection shall be protected to prevent any unauthorized personnel access (barricades, signage, etc.).

Respiratory Selection

- Shall select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to and correctly fits the user.
- FIP will make available for employees disposable respirators meeting NIOSH Standards.
- The minimum filtration efficiency of these respirators is 95%.
- The employer shall provide a respirator that is adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements under routine and reasonably foreseeable emergency situations.

Use of Respirators

FIP's Subcontractors are required to wear a respirator, when environmental working conditions exceed prescribed concentrations of air contaminants in CFR1926. The following are some possible examples for respirator usage:

- Cutting concrete, masonry block, brick.
- Mixing mortar or concrete.
- Sanding operations (not limited to sheetrock compound, paint, rust).
- Sweeping dust or dirt from working surfaces with limited ventilation.
- Working with toxic chemicals.
- Some welding operations with limited ventilation.
- Spray painting operations when MSDS requires respiratory protection.

Cleaning and Disinfecting

- The employer shall provide each respirator user with a respirator that is clean, sanitary, and in good working order. The employer shall ensure that respirators are cleaned and disinfected using the procedures in CFR 1910.134 Appendix B-2.
- Remove filters, cartridges, or canisters. Disassemble face pieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer.
- Wash components in warm water with mild detergent.
- When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following: Hypochlorite solution or aqueous solution of iodine.

Storage

- Respirators shall be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals.
- Respirators shall be stored so that the face piece and exhalation valve will rest in a normal position.
- No respirators are to be stored in a job box, toolbox or any place that the respirator can be crushed.

Inspections

- The user routinely, before and after each use, shall inspect all respirators.
- A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to the face piece, head straps, valves, connecting tube, and cartridges, canisters or filters. A check of elastomeric parts for pliability and signs of deterioration.
- Self-contained breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be maintained in a fully-charged state and shall be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level.

Evaluation Procedures

- The employer's competent person shall conduct evaluations of the workplace as necessary to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective.

Type and Limitations of Respirators

- Air-purifying mask (paper filter): For dust and mist. Not dangerous to life and health. Cannot be used for PPEs for chemical gasses or vapors.
- Air-purifying half-face respirator or full-face respirator with chemical canisters: For vapors and gases. Not to be used for oxygen-deficient atmospheres or IDLH conditions.
- Self-contained breathing apparatus (SCBA): For oxygen-deficient atmospheres or IDLH conditions.
- Atmosphere-supplying respirator (SARs) for oxygen-deficient atmospheres or IDLH conditions. Also need a 5 minute auxiliary SCBA.

Documented Medical Approvals

- Records of medical evaluations required by this section must be retained and made available in accordance with 29 CFR 1910.1020.
- A list of employee names with medical approvals shall be made available to FIP upon request.

Documented Fit Test Records

- Shall be made available to FIP upon request.
- Fit test records shall be retained for respirator users until the next fit test is administered.

Description of Training

- The employer is to provide effective training to employees who are required to use respirators. The training must be comprehensive, understandable, and recur annually or more often, if necessary.
- The employer shall ensure that each employee can demonstrate knowledge of at least the following:
 - Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
 - The limitations and capabilities of the respirator.
 - How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
 - How to inspect, put on and remove, use, and check the seals of the respirator.
 - How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
- Documentation of training shall be given to FIP upon request.

Enforcement

- If any employee's records fail to comply with the standard, that employee shall not perform the task.

Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the

limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Regular Standards

1910.134(c)(2)

Where respirator use is not required:

1910.134(c)(2)(i)

An employer may provide respirators at the request of employees or permit employees to use their own respirators, if the employer determines that such respirator use will not in itself create a hazard. If the employer determines that any voluntary respirator use is permissible, the employer shall provide the respirator users with the information contained in Appendix D to this section ("Information for Employees Using Respirators When Not Required Under the Standard"); and

1910.134(c)(2)(ii)

In addition, the employer must establish and implement those elements of a written respiratory protection program necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator, and that the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user. Exception: Employers are not required to include in a written respiratory protection program those employees whose only use of respirators involves the voluntary use of filtering face pieces (dust masks).

9.5 SAFETY ON AND AROUND EQUIPMENT

- Hand tools such as hammers, chisels, punches and picks should be inspected for faulty handles or mushroomed heads prior to each use.
- The operation of any equipment without proper authorization is prohibited.
- Do not operate any machine, equipment, or tool unless you are qualified to do so.
- Operators of mobile equipment must not allow anyone to ride on the running board, catwalks, steps, buckets or draw bars.
- Seat belts shall be provided and used on all equipment that is required to have roll over protective structure.

- Operators should always check to make certain that other people are in the clear before starting their equipment.
- Before backing up any type of equipment, the driver will sound the horn. If a vehicle has an obstructed rear view, it shall have a backup alarm or the driver shall be directed by a signal man when backing up. It is the driver's responsibility to test the backup alarms for operation before backing up the machine or vehicle. If there is any doubt to the ability to back safely, it is the driver's or operator's responsibility to get out and look.
- No pieces of equipment shall be repaired or refueled when the motor is running.
- Use only approved safety cans with self-closing lids and flash arrestors to transport flammables.
- Employees are not to work under vehicles or equipment that are supported by cables, jacks, chains or hydraulic hoists. Blocks, jack stands, or other approved methods are to be used to protect the workers in the event the jacks or hoist fail. Riding material platforms is prohibited unless equipped with the appropriate safety devices.
- Exercise caution with all work around power lines.
- If an energized power line is contacted, all personnel should be kept away from the machine until the power source is disconnected. The operator should remain in the machine until it is clear from the line.
- Before getting off equipment, operators shall lower all buckets, blades and/or booms to the ground and apply all emergency braking devices.
- Equipment that is not in proper operating condition shall be taken out of service, locked and/or tagged.
- No more than three (3) people may ride in the cab of a truck at one time. Riding material hoists, crane loads, balls, hooks or excavation equipment is prohibited.
- Cables, ropes, chains, sheaves, shackles, booms, lifting equipment, etc. shall be checked before use. Worn or frayed items are to be replaced at once.
- All materials being hoisted by crane need to have a tag line.
- Material or equipment being transported by truck must be loaded, cinched and flagged in a manner consistent with good loading and transportation practice and a truck shall be driven only by authorized employees holding a valid license of the proper classification.
- All machine guards shall be kept in place while the machinery is in operation. Report any unguarded machinery to appropriate supervision.

9.6 HAND, POWER, PORTABLE POWERED AND POWDER ACTUATED TOOLS

General Hand and Power Tool Requirements

Tools are such a common part of our lives that it is difficult to remember that they may pose hazards. All tools are manufactured with safety in mind, but tragically, a serious accident often occurs before steps are taken to search out and avoid or eliminate tool-related hazards. In the process of removing or avoiding the hazards, workers must learn to recognize the hazards associated with the different types of tools and the safety precautions necessary to prevent those hazards.

Hand Tools

Hand tools are non-powered. They include anything from axes to wrenches. The greatest hazards posed by hand tools result from misuse and improper maintenance.

Some examples:

- Using a screwdriver as a chisel.
- If a wooden handle on a tool such as a hammer or an axe is loose, splintered, or cracked, the head of the tool may fly off and strike the user or another worker.
- A wrench must not be used if its jaws are sprung because it might slip.
- Impact tools such as chisels, wedges, or drift pins are unsafe if they have mushroomed heads. The heads might shatter on impact sending sharp fragments flying.

- Appropriate PPE (i.e., safety goggles, gloves, etc.) should be worn due to hazards that may be encountered while using portable power tools and hand tools.
- Floors must be kept as clean and dry as possible to prevent accidental slips with or around dangerous hand tools.
- Employers should caution employees that saw blades, knives or other tools be directed away from aisle areas and other employees working in close proximity.
- Knives must be sharp. Dull tools can be more hazardous than sharp ones.
- Around flammable substances, sparks produced by iron and steel hand tools can be a dangerous ignition source.

The employer is responsible for the safe condition of tools and equipment used by employees, but the employees have the responsibility for properly using and maintaining tools.

Power Tool Precautions

Power tools can be hazardous when improperly used. There are several types of power tools, based on the power source they use: electric, pneumatic, liquid fuel, hydraulic, and powder actuated.

Employees should be trained in the use of all tools – not just power tools. They should understand the potential hazards as well as the safety precautions to prevent those hazards from occurring.

The following general precautions should be observed by power tool users:

- Never carry a tool by the cord or hose.
- Never yank the cord or the hose to disconnect it from the receptacle.
- Keep cords and hoses away from heat, oil and sharp edges.
- Disconnect tools when not in use, before servicing, and when changing accessories such as blades, bits and cutters.
- All observers should be kept at a safe distance away from the work area.
- Secure work with clamps or a vise, freeing both hands to operate the tool.
- Avoid accidental starting. The worker should not hold a finger on the switch button while carrying a tool which is plugged in.
- Tools should be maintained with care. They should be kept sharp and clean for the best performance. Follow instructions in the user's manual for lubricating and changing accessories.
- Be sure to keep good footing and maintain good balance.
- Proper apparel should be worn. Loose clothing, ties or jewelry can become caught in moving parts.
- All portable electric tools that are damaged shall be removed from use and tagged "DO NOT USE."

Guards

Hazardous moving parts of a power tool need to be safeguarded. For example, belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains or other reciprocating, rotating or moving parts of equipment must be guarded if such parts are exposed to contact by employees.

Guards, as necessary, should be provided to protect the operator and others from, but not limited to the following:

- Point of operation
- In-running nip points
- Rotating parts

- Flying chips and sparks

Safety guards must never be removed when a tool is being used.

Electric Tools

Employees using electric tools must be aware of several dangers; the most serious is the possibility of electrocution.

Among the chief hazards of electric-powered tools are burns and slight shocks which can lead to injuries or even heart failure. A shock also can cause the user to fall off a ladder or other elevated work surface.

To protect the user from shock, tools must either have a three-wire cord with ground and be grounded or be double insulated. Anytime an adapter is used to accommodate a two-hole receptacle, the adapter wire must be attached to a known ground. The third prong should never be removed from the plug.

These general practices should be followed when using electric tools:

- Electric tools should be operated within their design limitations.
- Gloves and safety footwear are recommended during use of electric tools.
- When not in use, tools should be stored in a dry place.
- Electric tools should not be used in damp or wet locations.
- Work areas should be well lighted.

Pneumatic Tools

Pneumatic tools are powered by compressed air and include chippers, drills, hammers and sanders.

There are several dangers encountered in the use of pneumatic tools. The main one is the danger of getting hit by one of the tool's attachments or by some kind of fastener the worker is using with the tool.

Eye protection is required and face protection is recommended for employees working with pneumatic tools.

Noise is another hazard. Working with noisy tools, such as jackhammers, requires proper, effective use of hearing protection.

When using pneumatic tools, employees must check to see that they are fastened securely to the hose to prevent them from becoming disconnected. A short wire or positive locking device attaching the air hose to the tool will serve as an added safeguard.

A safety clip or retainer must be installed to prevent attachments, such as chisels on a chipping hammer, from being unintentionally shot from the barrel.

Compressed air guns should never be pointed toward anyone. Users should never "dead-end" it against themselves or anyone else.

Hydraulic Power Tools

The fluid used in hydraulic power tools must be an approved, fire-resistant fluid and must retain its operating characteristics at the most extreme temperatures to which it will be exposed.

The manufacturer's recommended safe operating pressure for hoses, valves, pipes, filters and other fittings must not be exceeded.

General Safety Precautions

Employees who use hand and power tools and who are exposed to the hazards of falling, flying, abrasive and splashing objects, or exposed to harmful dusts, fumes, mists, vapors or gases must be provided with the particular personal equipment necessary to protect them from the hazard.

All hazards involved in the use of power tools can be prevented by following five basic safety rules:

- Keep all tools in good condition with regular maintenance.
- Use the right tool for the job.
- Examine each tool for damage before use.
- Operate according to the manufacturer's instructions.
- Provide and use the proper protective equipment.

Employees and employers have a responsibility to work together to establish safe working procedures. If a hazardous situation is encountered, it should be brought to the attention of the proper individual immediately.

Powder-Actuated Tools

Powder-actuated tools operate like a loaded gun and should be treated with the same respect and precautions. In fact, they are so dangerous that they must be operated only by specially-trained employees.

Safety precautions to remember include the following:

- These tools should not be used in an explosive or flammable atmosphere.
- Before using the tool, the worker should inspect it to determine that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions.
- The tool should never be pointed at anybody.
- The tool should not be loaded unless it is to be used immediately. A loaded tool should not be left unattended, especially where it would be available to unauthorized persons.
- Hands should be kept clear of the barrel end.
- To prevent the tool from firing accidentally, two separate motions are required for firing: one to bring the tool into position, and another to pull the trigger.
- The tools must not be able to operate until they are pressed against the work surface with a force of at least five (5) pounds greater than the total weight of the tool.
- If a powder-actuated tool misfires, the employee should wait at least 30 seconds, then try firing it again.
- Suitable eye and face protection are essential when using a powder-actuated tool.
- The tool must be designed so that it will not fire unless it has this kind of safety device.
- All powder-actuated tools must be designed for varying powder charges so that the user can select a powder level necessary to do the work without excessive force.
- If the tool develops a defect during use, it should be tagged and taken out of service immediately until it is properly repaired.

Requirements for usage of Powder-Actuated Tools (P.A.T.'s) on all FIP construction sites:

Training/Certifications

All employees using P.A.T.'s must be qualified by means of training by the manufacturer or manufacturer's representative. The employee must be trained on, but not limited to the following:

- Basic operation of the tool.
- How to conduct an inspection of the tool before daily use.
- The use of Personal Protective Equipment.
- The materials which can be fastened to.
- The materials which cannot be fastened to.

All employees shall carry proof of training by either a card or certificate.

The card or certificate shall include, but not be limited to the following information:

- Manufacturer of tool.
- Model name or number.
- Trained employee's name.
- Trainer.
- Date of training.

Enforcement

FIP's project superintendent shall randomly check employees for proof of training. If the employee cannot show proof of training for that particular model and manufacturer, the employee shall be removed from that task until proof of training can be produced.

- Subcontractors must provide FIP with employee's P.A.T. training certificates prior to starting.

Fueled Power Tools

Fueled power tools are used every day in the construction field. Most tools are engineered to be used in a safe manner (as long as manufacturer's specifications are followed). In order to work in a safe manner, the following applies when using a fueled power tool:

- Employee using proper PPE's.
- Tools are to be used in a well-ventilated area.
- Fueled power tools shall not to be used in a confined space.
- Guards shall not to be removed.
- Tools shall not be modified unless engineered by manufacturer.
- Tool shall be shut off during refueling.
- All measures shall be taken to prevent fuel spillage during refueling.

9.7 SCAFFOLDING ERECTION, USAGE, MAINTENANCE & DISMANTLING PROGRAM

Scaffolding is widely used in construction. FIP compiled this program to review the areas of concern and to provide a quick reference to subcontractors on FIP construction sites. All subcontractors using scaffolding should be knowledgeable with Subpart L CFR1926.450-CFR1926.454. Under FIP's Safety & Health Program, the use of scaffold brackets on concrete forms is covered in Section 9.13 Concrete and Masonry.

General Scaffold Requirements

- Scaffold and scaffold component shall be capable of supporting its own weight and at least four (4) times the maximum intended load applied or transmitted to it.
- Each platform on all working levels of scaffolds shall be fully planked or decked between the front uprights and the guardrail supports.
- Space between the platform and the uprights is no more than 1" (no exceptions).
- Each scaffold platform and walkway shall be at least 18" wide.
- Pump jack scaffold shall be at least 12" wide.
- Each end of a platform, unless cleated or otherwise restrained by hooks or equivalent means, shall extend over the center line of its support at least 6".

- Each end of a platform 10' or less in length shall not extend over its support more than 12".
- On scaffolds where platforms are overlapped to create a long platform, the overlap shall occur only over supports, and shall not be less than 12" (unless the platforms are nailed together or otherwise restrained to prevent movement).
- Wood platforms shall not be covered with opaque finishes, except that platform edges may be covered or marked for identification.
- Scaffold components manufactured by different manufacturers shall not be intermixed unless the components fit together without force and the user maintains the scaffold's structural integrity.
- Scaffold components manufactured by different manufacturers shall not be modified in order to intermix them.
- Supported scaffolds with a height-to-base ratio of more than 4:1 shall be restrained from tipping by guying, tying and bracing.
- Footings shall be level, sound, rigid and capable of supporting the loaded scaffold without settling or displacement.
- Unstable objects shall not be used to support scaffolds or platform units.
- Supported scaffold poles, legs, posts, frames and uprights shall be plumb and braced to prevent swaying and displacement.
- All suspension scaffold support devices, such as outrigger beams, cornice hooks, parapet clamps and similar devices, shall rest on surfaces capable of supporting at least four (4) times the load imposed on them.
- Before the scaffold is used, direct connections shall be evaluated by a Competent Person who shall confirm, based on the evaluation, that the supporting surfaces are capable of supporting the loads to be imposed.
- Counterweights shall be secured by mechanical means to the outrigger beams to prevent accidental displacement.
- When scaffold platforms are more than 2' feet above or below a point of access, ladders or stair towers shall be used.
- Cross braces shall not be used as a means of access.
- Bottom rung is not more than 24" above the scaffold supporting level.
- Have a rung length of at least 8".
- Have a maximum spacing between rungs of 16-3/4".
- The subcontractor shall provide safe means of access for each employee erecting or dismantling a scaffold where the provision of safe access is feasible and does not create a greater hazard.
- Before each work shift, a Competent Person shall inspect scaffolds and scaffold components for visible defects. Scaffolds found to be deficient shall not be used until such deficiencies are corrected. Scaffolding will be identified as non-usable by tagging or other means.
- The clearance between scaffolds and power lines shall be 10'.
- Erection, moving and dismantling of scaffolding shall take place only under the supervision and direction of a Competent Person qualified in this process.
- Erection, moving and dismantling shall be performed only by experienced and trained employees selected for such work by the Competent Person.
- Employees shall be prohibited from working on scaffolds covered with snow, ice or other slippery material except as necessary for removal of such materials.
- Debris shall not be allowed to accumulate on platforms.
- Nothing shall be used on scaffolds to increase the working level height of employees. (no exceptions).
- A registered professional engineer shall design scaffolds over 125' in height.
- Guardrail systems shall be installed along all open sides and ends of platforms over 10' high.
- Top rails shall be installed between 38" and 45" above the platform surface.
- Mid rails shall be installed at a height approximately midway between the top guardrail and the platform surface.

- The top guardrail must withstand 200 pounds of outward and downward force.
- Toe boards shall be erected along the edge of platforms more than 10' above lower levels.
- Subcontractors shall train employees on the hazards on scaffolding.
- Workers cannot ride on mobile scaffolding.
- Mobile scaffold shall not pass 4:1 ratios.
- In lieu of scaffold, stilts can be used if area is clean from debris, holes, ramps and drops in elevations.

Erection and Disassembling

All subcontractors shall provide trained employees to erect and disassemble scaffolding. There also must be a Competent Person on site. All guardrails for the working platform shall be installed during the erection of the scaffolding. No work shall take place until the Competent Person deems the area safe.

Fall Protection

The employer shall have a Competent Person determine the feasibility and safety of providing fall protection for employees erecting or dismantling supported scaffolds. Employers are required to provide fall protection for employees erecting or dismantling supported scaffolds where the installation and use of such protection is feasible and does not create a greater hazard. The Subcontractor shall provide FIP a letter stating why it would be unfeasible or create a greater hazard for not providing fall protection.

Access

The subcontractor shall provide safe means of access for each employee erecting or dismantling a scaffold where the provision of safe access is feasible and does not create a greater hazard. The employer shall have a Competent Person determine whether it is feasible or would pose a greater hazard to provide and have employees use a safe means of access. This determination shall be based on site conditions and the type of scaffold being erected or dismantled. When erecting or dismantling tubular welded frame scaffolds, (end) frames, with horizontal members that are parallel, level and are not more than 22" apart vertically, may be used as climbing devices for access.

Training

The employer shall have each employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining or inspecting a scaffold trained by a Competent Person to recognize any hazards associated with the work in question. Subcontractors shall provide to FIP's Safety Representative a roster of employees on site who are trained in erecting, disassembling, moving, operating, repairing and maintaining scaffolding. The training shall include the following topics:

- General overview of scaffolding
- Regulations and standards
- Erection/dismantling planning
- PPE and proper procedures
- Fall protection
- Materials handling
- Access
- Working platforms
- Foundations
- Guys, ties and braces
- Tubular welded frame scaffolds (if being used)
- Specific regulations and standards
- Components
- Parts inspection
- Erection/dismantling planning

- General safety
- Erection/dismantling procedures
- Rolling scaffold assembly
- Putlogs
- Tube and clamp scaffolds (if being used)
- Any other pertinent requirements in Subpart L 1926.

Retraining

When the employer has reason to believe that an employee lacks the skill for safe work involving the erection, use or dismantling of scaffolds, the employer shall retrain each such employee so that the requisite proficiency is regained. Subcontractors shall have on site a roster of trained employees qualified in erection and disassembly of scaffolding.

Access

When scaffold platforms are more than 2' above or below a point of access, portable, hook-on, attachable ladders, stair towers, stairway-type ladders, ramps, walkways, integral prefabricated scaffold access, or direct access from another scaffold, structure, personnel hoist, or similar surface shall be used. Cross braces shall not be used as a means of access. Access to scaffold from the building shall be no further than 14" away and 24" above or below the working platform.

FIP requires stair towers on scaffolding that is two (2) sections high and three (3) sections in width or larger.

Fall Protection

Each employee on a fully-planked scaffold more than 10' above a lower level shall be protected from falling to that lower level.

- Each employee on a single-point or two-point adjustable suspension scaffold shall be protected by both a personal fall arrest system and guardrail system.
- Guardrail systems shall be installed along all open sides and ends of platforms.
- Guardrail systems shall be installed before the scaffold is released for use by employees, other than erection/dismantling crews.
- The top edge height of top rails or equivalent member on supported scaffolds shall be installed between 38" and 45" above the platform surface. The top edge height on supported scaffolds manufactured and placed in service before January 1, 2000, and on all suspended scaffolds where both a guardrail and a personal fall arrest system are required, shall be between 36" and 45". When conditions warrant, the height of the top edge may exceed the 45" height.
- When mid rails are used, they shall be installed at a height approximately midway between the top edge of the guardrail system and the platform surface.
- Guardrails shall be surfaced to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.
- The ends of all rails shall not overhang the terminal posts except when such overhang does not constitute a projection hazard to employees.
- Cross bracing is acceptable in place of a mid-rail when the crossing point of two (2) braces is between 20" and 30" above the work platform or as a top rail when the crossing point of two (2) braces is between 38" and 48" above the work platform. The end points at each upright shall be no more than 48" apart.
- If no guardrail system is being used, a conventional fall arrest system shall be used.
- Each employee on a single-point or two-point adjustable suspension scaffold shall be protected by both a personal fall arrest system and guardrail system.

Falling Object Prevention

In addition to wearing hardhats, each employee on a scaffold shall be provided with additional protection from falling hand tools, debris and other small objects through the installation of toe boards, screens or guardrail systems. Toe boards shall be:

- Capable of withstanding, without failure, a force of at least 50 pounds applied in any downward or horizontal direction at any point along the toe board.
- At least 3½" high from the top edge of the toe board to the level of the walking/working surface.
- Toe boards shall be securely fastened in place at the outermost edge of the platform and have not more than ¼" clearance above the walking/working surface.
- Toe boards shall be solid or with openings not over 1" in the greatest dimension or create a CAZ to prevent employees and other subcontractors from entering the area.
- All barricades and signage must be up prior to usage.

Training

The subcontractor shall have each employee who performs work while on a scaffold trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. Subcontractors shall provide FIP with a roster of trained employees. The training shall include the following areas:

- The nature of any electrical hazards, fall hazards and falling object hazards in the work area.
- The proper use of the scaffold, and the proper handling of materials on the scaffold.
- The maximum intended load and the load-carrying capacities of the scaffolds used.
- Any other pertinent requirements of Subpart L.
- The nature of scaffold hazards.

When the employer has reason to believe that an employee lacks the skill or understanding needed for safe work involving the erection, use or dismantling of scaffolds, the employer shall retrain each such employee so that the requisite proficiency is regained. Retraining is required in at least the following situations:

- Where changes at the work site present a hazard about which an employee has not been previously trained.
- Where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard about which an employee has not been previously trained.
- Where inadequacies in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.

Enforcement

FIP's Project Superintendent reserves the right to stop any operation if it does not meet OSHA's standards. The subcontractor shall repair items not complying with FIP and Federal Codes immediately. FIP's three-strike policy will be in effect if no action has been taken.

9.8 LADDERS & STAIRWAY TRAINING PROGRAM

FIP will be giving a safety orientation to all workers. Part of the safety orientation is ladder and stair safety. It is FIP's intent to train its subcontractors to recognize the hazards and to eliminate accidents from ladders and stairways.

Recognition of Hazards

LADDERS

- Condition of ladders.
- Height of reach compared to working height of ladder.
- Positioning of ladders.
- Securing.

STAIRWAYS

- Guard rails.
- Metal pan stair construction.
- Debris on stairs.

Procedures to Minimize the Hazards

LADDERS

- Nothing less than a 6' stepladder is allowed on site.
- Stepladders to be used only in an open, locked position.
- All ladders in good working order.
- Extension ladders to be secured and at least 3' above landing.
- Work straight on the ladder – no reaching over.
- Employees shall be trained on proper use of ladders.
- When working on ladders, the body of the employee shall be centered in the middle of the ladder being used.

STAIRWAYS

- Metal pan stairs must be closed off with barricades, wire rope or other means to prevent usage until the pans are filled.
- Stairs are to be clear of debris at all times.
- Any stairway over 30" in height must have a guard rail system.
- Stairways shall have sufficient light.

Procedures for Erecting, Maintaining and Disassembling Fall Protection Systems

- While installing guardrail systems on stairways, the subcontractor must comply with CFR 1926 Subpart M.
- Guardrails shall be inspected daily. If any subcontractor removes a section, the section shall be replaced after the task is completed.
- During disassembly, the subcontractor shall follow the fall protection standard if over 6' from lower level.

Proper Construction, Use and Care

CONSTRUCTION

- All ladders shall meet all requirements of OSHA and ANSI codes.
- Job built gang ladders must be made to OSHA Standards CFR 1926.1053
- Stairways shall be made to engineer's specifications. Stairs cannot be used until guardrails are up and treads are filled in.

USE

- All stepladders are to be used per manufacturer's specifications. Ladders must be in an open and locked position. The use of the two top steps is not allowed.
- When stepladders are used near leading edge work 6' or more above the next level, fall protection must be used. To determine when to use fall protection, the height of the ladder is used. Example: When an 8' stepladder is less than 8' from the leading edge, fall

protection must be used; when 8' or more away from the leading edge, fall protection is not required unless another hazard exists.

- Extension ladders are not to be used in a flat position. Extension ladders shall be secured and extended 36" above landing surface.
- When extension ladders are used over floor openings with a lower surface 6' or more below the working surface, fall protection must be used.

PLACEMENT

- Ladders shall be placed on firm ground, free from any hazards. The areas around the ladders shall be free from any debris.

CARE

- Ladders shall be inspected daily for any damage to the ladder. If the ladder is damaged, it shall be removed from the job and repaired or replaced immediately.
- Stairs shall be free from any debris and treads must be filled in.

MAXIMUM INTENDED LOADS ON LADDERS

- Loads shall not exceed the limits on the manufacturing label. If loads exceed these limits, subcontractor must supply a ladder sufficient for the job.

Ladder and Stairway Standards

LADDERS

- Each self-supporting portable ladder: At least four times the maximum intended load, except that each extra-heavy-duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load.
- Each portable ladder that is not self-supporting: At least four times the maximum intended load, except that each extra-heavy-duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load.
- Rungs, cleats and steps of portable ladders and fixed ladders (including individual-rung/stapladders) shall be spaced no less than 10" and no more than 14" apart.
- A metal spreader or locking device shall be provided on each stepladder to hold the front and back sections in an open position when the ladder is being used.
- Wood ladders shall not be coated with any opaque covering, except for identification or warning labels, which may be placed on one face only of a side rail.
- When portable ladders are used for access to an upper landing surface, the ladder side rails shall extend at least 3' above the upper landing surface.
- Ladders shall be used only for the purpose for which they were designed.
- Ladders shall be used only on stable and level surfaces.
- The area around the top and bottom of ladders shall be kept clear.
- Ladders shall not be moved, shifted or extended while occupied.
- The top two steps of a stepladder shall not be used as a step.
- When ascending or descending a ladder, the user shall face the ladder.

STAIRWAYS

- Riser height and tread depth shall be uniform within each flight of stairs.
- Metal pan landings and metal pan treads, when used, shall be secured in place before filling with concrete or other material.
- All parts of stairways shall be free of hazardous projections.
- Slippery conditions on stairways shall be eliminated before the stairways are used to reach other levels.
- Except during stairway construction, foot traffic is prohibited on stairways.
- Stairways having four or more risers or rising more than 30", whichever is less, shall be equipped with at least one handrail and one stair rail system along each unprotected side or edge.

- Stair rails shall be not less than 36" from the upper surface of the stair rail system to the surface of the tread and must be able to withstand 200 lbs. of force without failure.
- Mid rails shall be located at a height midway between the top edge of the stair rail system and the stairway steps.
- Unprotected sides and edges of stairway landings shall be provided with guardrail systems and must be able to withstand 200 lbs. of force without failure.

ENFORCEMENT

- FIP's Project Superintendent has the authority to stop any work due to defective equipment. All defective equipment shall be removed from the job site and not returned until repaired and inspected by a Competent Person.
- Any employee working in an unsafe manner shall receive a verbal warning and training on how to work safely. The Competent Person for the contractor shall accompany the employee. If the employee still works in an unsafe manner, the employee will receive a written warning and training. If the employee continues to work in an unsafe manner, that employee shall be removed from the job site.

9.9 CRANES

All crane operations shall conform to OSHA standards revised on November 9, 2010. The controlling contractor (FIP Construction, Inc.) shall research and inspect all crane pads for voids, underground tanks or structures and verify that the crane pad is able to maintain suitable stability for operation to be performed.

General Procedures for crane operations at all FIP construction sites:

- Rated load capacities, recommended operating speeds, load capacities with and without jib, special hazard warnings or instructions shall be posted on cranes visible to the operator while at his/her station.
- Designated employees shall be trained in the proper use of hand or verbal signals for crane operations. The signal person must show FIP's site management their training card before operation starts. FIP will make a copy of their training card and keep on file.
- Hand signals shall be posted on the crane and posted on the construction site.
- Designated employees shall be trained in the proper use of hand signals for crane operations.
- The crane operator shall follow the signalman's directions, except in an emergency when any person at the scene has given the stop signal.
- A daily inspection of the crane shall be conducted and recorded by the operator. Copy of the records shall be kept in the cab of the crane.
- Monthly inspection shall be completed by the Competent Person designated by the employer. Written results shall be made by the Competent Person and a copy must be kept in the cab of the crane.
- A thorough annual inspection shall be conducted according to OSHA regulations. Written results shall be kept in the cab of the crane.
- All deficiencies found during the inspection shall be repaired or replaced before continued use.
- All belts, gears, shafts, sprockets, drums, flywheels, etc. shall be guarded to prevent contact by employees.
- Crane shall be barricaded around the swing radius.
- All glass shall be free from any distortion, which may interfere with the safe operation of the crane.
- A fire extinguisher rated 5 B:C or higher shall be located at the operator's station or cab at all times (must be certified every year).

- A 10' clearance shall be maintained from electrical lines rated 50KV or below. For electrical lines rated above 50KV, the clearance shall be 10' plus 0.4" for every 1KV over 50KV.
- Wire rope (rigging) shall be visually inspected daily for wear or defects. If wear or defects are found, the wire rope shall be removed from service.
- Tag lines must be used on all picks.
- Wire ropes shall be stored off the ground and in a straight position.
- When Christmas treeing, the maximum number of pieces is three and all must have a tag line.

INSPECTION OF CRANES

All cranes that enter FIP's construction sites are inspected (prior to setting up) for the following:

- Daily crane inspection report.
- Monthly inspections per crane manufacturer's specifications.
- Yearly inspection per OSHA regulations.
- Valid Connecticut crane operator's license for the type of crane being used.
- Load charts in cab are visible to the operator.
- Load chart serial number must match the crane's serial number.
- Identification must be on a permanent, durable plate with the manufacturer's name, crane model number, serial number and year.
- Hand signal chart posted on the outside of the crane.
- Yearly inspected fire extinguisher in cab with minimum rating of 5B:C.
- Condition of safety glass windshield.

During set up of crane, the following items will be inspected before use:

- Safety latches on hooks.
- Rigging: Chokers, cables and taglines (look for broken strands and cables with a permanent kink in it).
- Outrigger support, via blocks, dunnage, etc.
- Barricades around swing radius.
- Leaking hydraulic lines.

SAFE OPERATION

- Crane operator swinging material in a safe manner.
- The operator shall be aware of changing wind conditions and have knowledge on the effect of the load.
- Operators have the right to stop any crane operation if the operator believes the task is beyond the capability of the crane.
- Operator paying attention while waiting for a connection or rigging of material.
- Inside cab and hands on the levers when lifting or resting with a load.
- Following signals.
- Adequate lighting during operation (either day or night).
- All filler caps closed.
- When crane is parked, wheel chocks shall be used to prevent movement.

ENFORCEMENT

- FIP's project superintendent shall check all cranes and operations on the construction site. If any one of the items described above do not meet the requirements, the operation will be immediately stopped. The crane will not resume until corrected.

DOCUMENTATION

- FIP shall make a copy of the operator's license/certifications and crane information.
- FIP shall make a copy of the signal person's certifications.

9.10 MATERIAL LIFT (LULL)

Requirements for material lifts (Lull) on all FIP projects.

General procedures for material lifts (Lulls) operations at construction site:

- Rated load capacities, special hazard warnings or instructions shall be posted and be visible to the operator while at his/her station.
- Shall be equipped with an audible backup alarm and a horn.
- The operator must make a daily inspection of the material lift/Lull. All deficiencies found during the inspection shall be repaired or replaced before continued use.
- Equipment that is not in proper operating condition shall be taken out of service, locked and tagged.
- The operation of any equipment without proper authorization and training is prohibited.
- Operator must show a certificate for proof of training for that piece of equipment.
- Operators of mobile equipment must not allow anyone to ride on the running board, catwalks, steps, buckets or draw bars.
- Seatbelts shall be provided and used on all equipment that is required to have roll-over protective structure.
- All glass (if equipped) shall be free from any distortion that may interfere with safe operation.
- A 10' clearance shall be maintained from electrical lines rated 50KV or below. For electrical lines rated above 50KV, the clearance shall be 10' plus 0.4" for every 1KV over 50KV.
- Operators should always check to make certain that other people are in the clear before starting their equipment.
- Before backing up any type of equipment, the driver will sound the horn. It is the driver's responsibility to test the backup alarms for operation before backing up the machine or vehicle. If there is any doubt of the ability to back safely, it is the driver's or operator's responsibility to get out and look.
- No piece of equipment shall be repaired or refueled when the motor is running.
- Before getting off equipment, operators shall lower all buckets, blades and/or booms to the ground and apply all emergency-braking devices.
- Any equipment outside of the construction fence shall be accompanied by a flagman.
- Operators shall continue to wear safety glasses while operating the lift, unless the cab is fully enclosed with safety glass.
- Operators shall continue to wear hard hats while operating the lift, unless the cab is fully enclosed with safety glass.
- Operating speed on site shall not exceed 15 m.p.h. (empty). If loaded, the operator shall adjust his speed accordingly.

CERTIFICATIONS

All operators must receive training by the manufacturer or manufacturer's representative on, but not limited to the following:

- Daily inspections (what to look for).
- Safe operation.
- What can and cannot be lifted.
- Clearance needed for electrical lines.
- How to read load charts.
- Maintain a clean safety glass windshield (if equipped with one).
- Operators shall show proof of training before using the equipment.
- Copies of certificates shall be maintained at the FIP job trailer.

ENFORCEMENT

- FIP's project superintendent shall check the credentials of material lift operator on the construction site. If any one of the items described above do not meet the requirements, the operation will be immediately stopped. The crane will not resume until corrected.

9.11 AERIAL LIFTS

General procedures and requirements for aerial lifts and their operation on all FIP construction sites:

- Rated load capacities, special hazard warnings or instructions shall be posted and be visible to the operator.
- Aerial lifts shall be equipped with an audible alarm.
- The operator must make a daily inspection of the aerial lift. All deficiencies found during the inspection shall be repaired or replaced before continued use.
- Equipment that is not in proper operating condition shall be taken out of service, locked and tagged.
- The operation of any equipment without proper authorization and training is prohibited.
- Operator must show a certificate for proof of training.
- Copies of training certificates shall be filed on site.
- A 10' clearance shall be maintained from electrical lines rated 50KV or below. For electrical lines rated above 50KV, the clearance shall be 10' plus 0.4" for every 1KV over 50KV.
- Operators should always check to make certain that other people are in the clear before starting their equipment.
- No piece of equipment shall be repaired or refueled when the motor is running.
- A body harness shall be worn and lanyard attached to the boom or basket. (This does not apply to scissors lifts with a proper guardrail system.)
- Ensure that all guardrails and gates are in safe condition.
- Aerial lifts are not to be used as a material hoist or for towing and pulling.
- All aerial lifts shall be used as access to work surface levels.
- Travel speed to be determined by surface conditions.
- To prevent working over other workers, the area below shall be barricaded.
- No operator/worker shall stand on the mid or upper guardrails to gain height.
- The lift shall not be altered in any way.
- Platforms and baskets must be lowered to the lowest possible level before traveling.
- Ensure all surfaces are clear from hazards before traveling.
- In high traffic areas, a spotter must be used.
- Lifts with outriggers, stabilizers, extendable axles or other stability devices shall be used, inspected and maintained to manufacturer's specifications.

CERTIFICATIONS

All operators must receive training by the manufacturer or manufacturer's representative on, but not limited to the following:

- Daily inspections.
- Safe operation.
- What can and cannot be lifted.
- Clearance needed for electrical lines.
- Operators shall show proof of training before using the equipment.

INSPECTION AND MAINTENANCE

An inspection by the certified operator shall be performed prior to usage. The operator shall perform visual and/or functional tests on, but not limited to the following:

- Operating and emergency controls.
- Safety devices.
- Air, hydraulic and fuel systems.
- Cables and wiring harnesses.
- Tires (filled to proper pressure).
- Loose or missing parts.
- Guardrail system (to proper heights).
- Outriggers, stabilizers, extendable axles, etc. (if equipped).
- Areas lift will be used. Clean surfaces, holes covered with proper materials or barricaded. Are warning lines needed to prevent workers from walking below you?
- All manufacturer's operating instructional manuals shall be located on the lift.

ENFORCEMENT

- FIP's project superintendent shall check all aerial lift operators on the construction site. If any one of the items described above does not meet the requirements, the operation will be immediately stopped.
- If FIP's safety representative is not available, FIP's project superintendent shall check the credentials of new operators.

9.12 EXCAVATIONS AND TRENCHES

- Before doing any excavation work, the existence and location of underground utilities must be determined.
- Unless excavation is in solid rock, without blasting, all excavations of more than five feet must be shored, braced, or sloped to prevent any hazardous ground movement.
- In excavations where workers are expected to enter, all spoils shall be placed not closer than 2' from the edge of the excavation.
- Daily inspections of the excavations shall be made by the Competent Person.
- When workers are required to enter trenches of 4' or more, ladders shall be placed at no more than 25' from the worker.
- Adequate barrier protection shall be placed around all excavations and warning lights installed for sufficient warning of danger at night if exposed to vehicular traffic.
- Pedestrian walkways over open excavations must be of sufficient strength, have guardrails and a maximum slope of 1' in 12'.

9.13 CONCRETE AND MASONRY

General procedures and requirements for concrete and masonry operations on all FIP construction sites:

Concrete

- Reinforcing steel (rebar). All protruding reinforcing steel, onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement.
- No employee shall be permitted to work under concrete buckets while buckets are being elevated or lowered into position. Tag lines shall be used.
- Power concrete trowels. Powered and rotating type concrete troweling machines that are manually guided shall be equipped with a control switch that will automatically shut off the power whenever the hands of the operator are removed from the equipment handles.

- Precast concrete wall units, structural framing, and tilt-up wall panels shall be adequately supported to prevent overturning and to prevent collapse until permanent connections are completed.
- No employee shall be permitted under precast concrete members being lifted or tilted into position except those employees required for the erection of those members.
- "Formwork and reinforcing steel." Each employee on the face of formwork or reinforcing steel shall be protected from falling 6 feet (1.8 m) or more to lower levels by personal fall arrest systems, safety net systems, or positioning device systems.
- "Ramps, runways, and other walkways including form scaffold brackets." Each employee on ramps, runways, and other walkways shall be protected from falling 6 feet (1.8 m) or more to lower levels by guardrail systems.
- Planks used on form scaffolding brackets shall be in good condition, rated for type of application (no 2x6-12s) and minimum two (2) planks wide.

Masonry

- Masonry saws shall be guarded with a semicircular enclosure over the blade.
- Operator must show a certificate for proof of training.
- Copies of training certificates shall be filed on site.
- A 10' clearance shall be maintained from electrical lines rated 50KV or below. For electrical lines rated above 50KV, the clearance shall be 10' plus 0.4" for every 1KV over 50KV.
- Operators should always check to make certain that other people are in the clear before starting their equipment.
- No piece of equipment shall be repaired or refueled when the motor is running.
- A body harness shall be worn and lanyard attached to the boom or basket. (This does not apply to scissors lifts with a proper guardrail system.)
- Ensure that all guardrails and gates are in safe condition.
- Aerial lifts are not to be used as a material hoist or for towing and pulling.
- All aerial lifts shall be used as access to work surface levels.
- Travel speed to be determined by surface conditions.
- To prevent working over other workers, the area below shall be barricaded.
- No operator/worker shall stand on the mid or upper guardrails to gain height.
- The lift shall not be altered in any way.

VIOLATION OF THESE OR OTHER FIP SAFETY RULES CAN BE CAUSE FOR
DISMISSAL AND/OR REMOVAL FROM THE JOB.

10.0 CONFINED SPACE ENTRY PROGRAM

10.1 POLICY AND PROCEDURES

- A. All confined spaces will be considered a hazardous environment until valid tests prove otherwise. Confined spaces can only be entered by authorized personnel.
- B. All confined spaces will be placarded with a sign reading in English "Confined space no entry without a permit. Permit available through the General Manager of Field Operations." In those cases where it is not possible to placard the space, it shall be identified by an equally effective means, i.e., work practice, safety rule, or documented job training standard operating procedure.
- C. Any authorized entrant will be trained in the duties of the job and the hazards associated with the confined space. Training shall include the use of proper personal protective equipment and its limitations, such as: respirators, gloves, decontamination showers, heat stress symptoms, lifelines, harnesses, and rescue equipment.
- D. Equipment used by the entrant will be inspected by the user and the authorized person in charge of the entry prior to use. Repairs or replacement will be made as needed to assure safe usage.
- E. All entries into confined spaces require a permit to be issued by the General Manager of Field Operations.
- F. Permits shall be of two types: Confined Space Entry Permit or Confined Space Hot Work Permit. Confined space permits shall be good for one shift only and must be revalidated if employees leave the space and wish to return, i.e., lunch or heat stress breaks, equipment failure, etc. Revalidate air sampling rechecks on back of permit.
- G. All entries into confined spaces shall be continually monitored with an oxygen and explosive gas meter. Toxics shall be continually monitored to assure employees are below the PEL (Permissible Exposure Limit). If levels above the PEL are encountered, and cannot be controlled to assure compliance with the PEL, then respirators shall be used according to FIP's respirator policy and program. If entry and work in the confined space is IDLH (Immediately Dangerous to Life or Health) or an unknown atmosphere exists, then entrant shall be equipped with a SCBA (Self Contained Breathing Apparatus) or equivalent, secured by a harness and lifeline to an outside stationary position and monitored by an attendant.
- H. Any oxygen deficient atmosphere or atmosphere 20 times the PEL for airborne contaminant is considered IDLH.

10.2 DEFINITIONS

- A. **Attendant:** A trained FIP Employee outside the permit entry confined space. The attendant acts as an observer of the authorized entrants within the permit entry confined space and remains in continuous, though not necessarily constant, communication with them. The attendant can immediately call rescue services if needed. The attendant does not enter the space unless replaced by another attendant. If necessary for attendant to enter confined space for rescue purposes, another attendant must be present.
- B. **Authorized Entrant:** An employee who is authorized by FIP to enter a permit entry confined space.

- C. Blanking or Blinding: The absolute closure of a pipe, line or duct, by fastening across it a solid plate or cap capable of withstanding the maximum upstream pressure.
- D. Confined Space: A tank, vessel, silo, vault, pit, open topped space, pipeline, duct, sewer, tunnel, having limited means of egress, not designed for continuous employee occupancy, and contains or may contain a hazardous atmosphere.
- E. Double Block and Bleed: Isolate a confined space from a line, duct or pipe by locking or tagging two closed in-line valves, and locking or tagging open to the outside atmosphere a drain or bleeding in the line between the two closed valves.
- F. Engulfment: Surrounding and effective capture of a person by finely divided particulate matters or a liquid.
- G. Entry Permit: FIP's A or B written authorization assuring safe employee entry into and work within permit entry confined spaces for a specific date, time and number of employees.
- H. Entry: Any action resulting in any part of the employee breaking the plane of any opening of the permit entry confined space, and include any ensuing work activities inside the confined space. This does not include space evaluation where an employee's hand or arm would break the plane of opening during testing.
- I. Hazardous Environment or Atmosphere: An atmosphere presenting a potential for death, disablement, injury, or acute illness from one or more of the following causes:
 - 1. Less than 19.5 percent or more than 23.5 percent oxygen;
 - 2. A flammable gas, or vapor, in excess of 10 percent of its lower flammable limit (LFL) or lower explosive limit (LEL);
 - 3. An airborne combustible dust at a concentration that obscures vision at a distance of five feet or less;
 - 4. An atmospheric concentration that exceeds the listed numerical value of any toxic, corrosive, or asphyxiant substance listed in the TLV booklet (ACGIH) or the PEL (OSHA) that can reasonably be expected to be present;
 - 5. A biological, radiological hazard or that is otherwise known to the employer to present a safety or acute health hazard;
 - 6. Any condition immediately dangerous to life or health.
- J. Hot Work Permit: FIP's permit B which is a written authorization to perform operations such as riveting, welding, cutting, burning, or heating that could provide a source of ignition causing the possibility of fire or explosion due to the presence of flammables.
- K. Immediately Dangerous to Life or Health (IDLH): Any condition that poses an immediate threat to life, or which is likely to result in acute or immediate or health effects.
- L. Inerting: Rendering the atmosphere of a confined space nonflammable, non-explosive or otherwise chemically non-reactive by displacing or diluting the original atmosphere

with steam or a non-reactive gas such as carbon dioxide (CO₂) or nitrogen (N₂) or argon. Oxygen level for an inerted space will be kept below 8% O₂.

- M. In-Plant Rescue Team: A group of two or more employees designated and trained to perform rescues from confined spaces in their workplace.
- N. Isolation: Positively preventing any unwanted form of energy, or other agent with a serious potential for hazard, from entering the confined space by using such means as blanking, double block and bleed, or lock-out/tag-out.
- O. Line breaking: The intentional opening in a permit entry confined space of a pipe, line or duct that is or has been carrying flammable, corrosive or toxic material, inert gas, or carrying any fluid at a pressure or temperature capable of causing injury.
- P. Lock-out/tag-out: Secure all energy at its lowest potential level, so there is no possibility of rotating parts, electrocution or flowing fluids with a one key padlock and location tag.
- Q. Non-permitted Condition: Any condition or set of conditions whose hazard potential exceeds the limits authorized by the entry permit.
- R. Oxygen Deficient Atmosphere: An atmosphere containing less than 19.5 percent oxygen by volume.
- S. Oxygen Enriched Atmosphere: An atmosphere containing more than 23.5 percent oxygen by volume.
- T. Qualified Person: A person designated by the employer, in writing, as capable (by education and/or specialized training) of anticipating, recognizing, and evaluating employee exposure to hazardous substances or other unsafe conditions in a confined space. This person shall be capable of specifying necessary control and/or protective action to ensure worker safety.

10.3 HAZARDS RELATED TO CONFINED SPACE

- A. Types of Hazards
 - 1. Oxygen deficiency
 - 2. Combustible/flammable/explosive atmospheres
 - 3. Toxic gases or vapors
 - 4. Engulfment or entrapment
 - 5. Physical hazards
 - a. Grinding
 - b. Agitators
 - c. Steam
 - d. Mulching
 - e. Vibration
 - f. Noise control
 - g. Heat stress

- h. Falling/tripping
 - i. Other moving parts
 - 6. Corrosive chemicals
 - 7. Biologicals
 - 8. Unknowns
 - a. Electrical
 - b. Rodents/snakes/spiders
 - c. Lighting (poor visibility)
 - d. Footing
- B. How hazards occur
- 1. Previously stored products/chemicals
 - 2. Unexplained leaks/spills (ex. Cl_2 , acetylene, ammonia, H_2O)
 - 3. Chemical reactions
 - a. Manufacturing process
 - b. Products stored
 - c. Drying of paints
 - d. Oxidation/reduction
 - e. Cleaning with acids/solvents, etc.
 - f. Rusting/decomposing/fermentation
 - 4. Operations accomplished within space
 - a. Welding
 - b. Painting
 - c. Mucking
 - d. Scraping/abrasive blasting
 - 5. Inerting with nonflammable products (ex. CO_2 , N_2 , H_2O)

10.4 ENTRY PROCEDURES (TEN BASIC RULES)

- A. Identify all confined space (CS) or potential CS with a sign, placard, or other equally effective means.
- B. No entry without a permit from the Safety Director.
 - 1. Permit is issued for a specific period for a specific purpose and must be signed by the designated "Qualified Person" trained to issue permits.
- C. Every entry will be continually monitored for oxygen, LEL and toxics.
- D. Ventilate at all times with approved air movers, if possible.
- E. Training required for all entrants including a pre-entry briefing.

- F. Personal protective equipment required by permit must be the proper type and must be inspected prior to use by permit issuer.
- G. Tests to be done prior to entry and recorded - Oxygen first: from 19.5% to 21.5%; then Lower Explosive Limits (LEL) or Lower Flammable Limits (LFL) second; last but not least, toxics: Carbon Monoxide (CO), Hydrogen Sulfide H₂S, Carbon Dioxide (CO₂), solvents, etc.
- H. Rescue Program and equipment checked out prior to entry.
- I. All potential energy zeroed out or eliminated, locked and tagged (electrical, mechanical, hydraulic).
- J. Recordkeeping required for entry:
 - 1. Instrument readings
 - 2. Rescue training documented when, who, how, etc.
 - 3. Calibration of test equipment - dates, initials, etc.
 - 4. Records concerning inspections on ropes, harnesses, chains, SCBA's, tools, equipment, respirators, etc.
 - 5. Training of personnel
- K. All entrants will immediately evacuate the confined space when any entrant is alerted to "non-permitted conditions."
- L. A Confined Space Entry Permit Log shall be maintained in the Project Superintendent's office. All entries shall be numbered sequentially and kept indefinitely.

10.5 REFERENCES

- A. OSHA, Respiratory Protection, CFR, 1910.134.

10.6 CONFINED SPACE ENTRY PERMIT

INSTRUCTIONS (** Nobody will enter a confined space until permit is complete.)

1) Complete permit before entry begins. 2) Post permit at entrance to confined space until work in the confined space is complete. 3) Send permit to safety coordinator for review within 24 hours of completion of the work in the confined space.

GENERAL INFORMATION

JOBSITE: _____

PERMIT BEGINS: Date: _____ Time: _____ AM/PM PERMIT EXPIRES: Date: _____ Time: _____ AM/PM

LOCATION & DESCRIPTION OF CONFINED SPACE: _____

PURPOSE OF ENTRY: _____

NAMES OF AUTHORIZED INDIVIDUALS (Please print.)

AUTHORIZED PERSON IN CHARGE: _____

WILL HE/SHE SUPERVISE ENTRY: YES NO

AUTHORIZED ATTENDANTS

AUTHORIZED ATTENDANTS

1) _____

1) _____

2) _____

2) _____

3) _____

3) _____

4) _____

4) _____

METHOD OF COMMUNICATION

DESCRIBE: _____

EQUIPMENT REQUIRED FOR ENTRY

Hard Hats	YES	NO
Coveralls	YES	NO
Boots	YES	NO
Safety Glasses	YES	NO
Safety Goggles	YES	NO
Face Shield	YES	NO
Ear Protection	YES	NO
Encapsulated Suit	YES	NO
Gloves	YES	NO
Safety Lights	YES	NO
Lockout Devices	YES	NO
Warning Signs	YES	NO
Fire Extinguisher	YES	NO
Ventilator/Blower	YES	NO
Non-Spark Tools	YES	NO
Rescue Equipment	YES	NO
Other: _____	YES	NO
Other: _____	YES	NO

RESPIRATORS REQUIRED FOR ENTRY

ARE RESPIRATORS REQUIRED? YES NO IF YES, WHAT TYPE:

AIR PURIFYING: Half-Mask _____ Full-Face _____
 Type of Filters: _____
 AIR SUPPLIED: _____ and/or _____ and/or _____
 Air Bottles _____ Compressor _____ Egress Bottles _____

SELF-CONTAINED BREATHING APPARATUS (SCBA):

**** note: Air-supplied respirators with egress bottle or SCBA respirators are required for atmospheres that are Immediately Dangerous To Life Or Health (IDLH)**

RESCUE EQUIPMENT REQUIRED FOR ENTRY

SCBA	YES	NO
Harness/Lifeline	YES	NO
Wristlets	YES	NO
Tripod/Manlift	YES	NO
Winch	YES	NO
First-Aid Kit	YES	NO
Stretcher	YES	NO

EMERGENCY SERVICES:

_____ identify
 _____ method of communication
 _____ phone number

ISOLATION REQUIREMENTS (Please circle appropriate method, check YES or NO, and Initial.)

	YES	NO	COMPLETED BY:
Electrical: DISCONNECT - LOCKOUT - TAGGED - Other: _____	_____	_____	_____
Mechanical Moving Parts: LATCH - CHAIN - CHOCK - BLOCK - Other: _____	_____	_____	_____
Hydraulics: BLANKED - BLEED - DISCONNECT - Other: _____	_____	_____	_____
Pipelines: BLANKED - BLEED - DISCONNECT - Other: _____	_____	_____	_____
Valves: LOCKOUT - DISCONNECT - TAG - Other: _____	_____	_____	_____
Belt Drives: DISCONNECT - TAG - Other: _____	_____	_____	_____
Chain Drives: DISCONNECT - TAG - Other: _____	_____	_____	_____
Shaft Drives: DISCONNECT - TAG - Other: _____	_____	_____	_____
Space Purged: INERT GAS - WATER - Other: _____	_____	_____	_____
Other: _____	_____	_____	_____
Other: _____	_____	_____	_____

CONFINED SPACE ENTRY PERMIT (CONTINUED)

HOT WORK PERMIT	
IS A HOT WORK PERMIT REQUIRED? YES NO	IF YES, IS IT ATTACHED TO THIS PERMIT? YES NO

SIGNATURE OF ATTENDANTS AND ENTRANTS					
The confined space job and it's safety aspects have been explained to us, and we have read and understand the above permit. We consider it safe to proceed with the confined space entry work. (Please sign, date and initial below.)					
ATTENDANTS			ENTRANTS		
1)	Date:	Initials:	1)	Date:	Initials:
2)	Date:	Initials:	2)	Date:	Initials:
3)	Date:	Initials:	3)	Date:	Initials:
4)	Date:	Initials:	4)	Date:	Initials:

SIGNATURE OF PERSON AUTHORIZING ENTRY			
SIGNATURE:	DATE:	TIME:	AM/PM

CANCELLATION OF PERMIT		
DATE CANCELED:	TIME CANCELED: AM/PM	CANCELED BY: (signature)
REASON PERMIT WAS CANCELED:		

TESTING AND MONITORING CHECKLIST								
MAKE, MODEL & SERIAL # OF TESTING EQUIPMENT:								
DATE EQUIPMENT CALIBRATED:			INTERMITTENT TESTING:			CONTINUOUS MONITORING:		
	TEST 1	TEST 2	TEST 3	TEST 4	TEST 5	TEST 6	TEST 7	TEST 8
Date:								
Time:	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm
Oxygen:	%	%	%	%	%	%	%	%
LEL:	%	%	%	%	%	%	%	%
CO:	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
H ₂ S:	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Tox:								
Tested by: (names)								

CONFINED SPACE HAZARDS CHECKLIST: (Please check YES or NO.)			
	YES	NO	COMPLETED BY:
Oxygen Deficiency (< 19.5%)			
Oxygen Enriched (> 22%)			
Toxic Atmosphere			
Flammable/Combustible Atmosphere			
Electrical			
Mechanical			
Entrapment			
Pipelines			
Bacteria/Infectious			
Insects/Rodents			
Temperature			
Falls			
Other:			
Other:			

EVALUATION (Review within 24 hours of completion of the work in the confined space.)		
EVALUATED BY: (signature)	DATE:	TIME: AM/PM

10.7 CONFINED SPACE HOT WORK PERMIT

INSTRUCTIONS
*** A Hot Work Permit must be completed for all operations performed within a confined space that require workers to weld, cut, or use other open-flame or spark producing devices in a confined space. 1) Complete permit and eliminate or control all hazardous conditions before entry begins. 2) The Hot Work Permit must be signed by the person authorizing entry. 3) Attach signed permit to the Confined Space Entry Permit and post both permits at entrance to confined space. 4) Send permits to safety coordinator for review within 24 hours of completion of the work in the confined space. 5) <i>NOTE: Do not cut, weld, or use other open-flame or spark producing equipment until the proper precautions have been taken.</i>

GENERAL INFORMATION					
JOBSITE:					
PERMIT BEGINS: Date:	Time:	AM/PM	PERMIT EXPIRES: Date:	Time:	AM/PM
LOCATION & DESCRIPTION OF CONFINED SPACE:					
PURPOSE OF ENTRY:					
TYPE OF HOT WORK	Cut:	Weld:	Grind:	Repair:	Other:
					identify
TYPE OF EQUIPMENT:					

PRECAUTIONS (Please circle YES or NO.)		
Is an air sampling meter used to monitor the presence of flammable/combustibles?	YES	NO
Does the confined space contain a flammable/combustible material or atmosphere? (<i>Flammable/combustibles must not exceed 10% Lower Explosive Limit (LEL).</i>)	YES	NO
Does the confined space contain combustible dust or ignitable residue?	YES	NO
Have cutting, welding, and other flame/spark producing devices been inspected and are they in good condition?	YES	NO
Have flammable/combustible materials been removed?	YES	NO
Have flammable/combustible materials been purged from the confined space?	YES	NO
Is a fire extinguisher, of the proper type, available and has it been inspected?	YES	NO
Is a fire watch posted?	YES	NO
Is electrical equipment (lights, air sampling instruments, blowers, etc.) intrinsically safe (explosion proof)?	YES	NO
Have sewer and drain openings been covered?	YES	NO
Is general ventilation of sufficient capacity (6 air changes per minute) provided and in use?	YES	NO
Is local ventilation for welding and cutting arranged so as to remove fumes and smoke at the source?	YES	NO
Are respirators, of the proper type, available and in use when required?	YES	NO
Have precautions been taken to protect workers from electrical shock?	YES	NO
Are welding machine and other equipment safely located, grounded, and spark controlled?	YES	NO

TRAINING (Please circle YES or NO.)		
Have all workers been trained to work safely?	YES	NO
Have all workers completed a pre-entry briefing?	YES	NO
Have all workers been trained in emergency procedures?	YES	NO
Have all workers been trained to use fire extinguishers?	YES	NO
Have all workers been instructed <u>not</u> to bring gas cylinders into the confined space?	YES	NO
Have all workers been instructed to remove welding hoses and leads from the confined space when not in use?	YES	NO

FIRE WATCH (Please print name.)
NAME:

PERSON(S) PERFORMING HOT WORK (Please print name(s).)		
1)	2)	3)

SIGNATURE OF PERSON AUTHORIZING ENTRY		
SIGNATURE:	DATE:	TIME: AM/PM

CANCELLATION OF PERMIT		
DATE CANCELED:	TIME CANCELED: AM/PM	CANCELED BY: (signature)
REASON PERMIT WAS CANCELED:		

CONFINED SPACE HOT WORK PERMIT (CONTINUED)

ACCEPTABLE ENTRY CONDITIONS			
OXYGEN: _____ %	FLAMMABLE COMBUSTIBLES: _____ % LEL	OTHER: _____	
HYDROGEN SULFIDE: _____ PPM	CARBON MONOXIDE: _____ PPM	OTHER: _____	

TESTING AND MONITORING CHECKLIST								
MAKE, MODEL & SERIAL # OF TESTING EQUIPMENT: _____								
DATE EQUIPMENT CALIBRATED: _____			INTERMITTENT TESTING:			CONTINUOUS MONITORING:		
	TEST 1	TEST 2	TEST 3	TEST 4	TEST 5	TEST 6	TEST 7	TEST 8
Date:								
Time:	_____ am/pm	_____ am/pm	_____ am/pm	_____ am/pm	_____ am/pm	_____ am/pm	_____ am/pm	_____ am/pm
Oxygen:	_____ %	_____ %	_____ %	_____ %	_____ %	_____ %	_____ %	_____ %
LEL:	_____ %	_____ %	_____ %	_____ %	_____ %	_____ %	_____ %	_____ %
CO:	_____ ppm	_____ ppm	_____ ppm	_____ ppm	_____ ppm	_____ ppm	_____ ppm	_____ ppm
H ₂ S:	_____ ppm	_____ ppm	_____ ppm	_____ ppm	_____ ppm	_____ ppm	_____ ppm	_____ ppm
Tox:	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
Tested by: (names)	_____	_____	_____	_____	_____	_____	_____	_____

CONFINED SPACE HAZARDS CHECKLIST: (Please check YES or NO.)			
	YES	NO	COMPLETED BY:
Oxygen Deficiency (< 19.5%)	_____	_____	_____
Oxygen Enriched (> 22%)	_____	_____	_____
Toxic Atmosphere	_____	_____	_____
Flammable/Combustible Atmosphere	_____	_____	_____
Electrical	_____	_____	_____
Mechanical	_____	_____	_____
Entrapment	_____	_____	_____
Pipelines	_____	_____	_____
Bacteria/Infectious	_____	_____	_____
Insects/Rodents	_____	_____	_____
Temperature	_____	_____	_____
Falls	_____	_____	_____
Other: _____	_____	_____	_____
Other: _____	_____	_____	_____

11.0 FALL PROTECTION PROGRAM

It is the responsibility of each subcontractor to provide fall protection for their employees at all times when an employee is walking or working on a surface with an unprotected side or edge which is 6' or more above a lower level. The employee shall be protected from falling by the use of a guardrail system, safety net system, or personal fall arrest system.

When a subcontractor can demonstrate that it is infeasible or creates a greater hazard to use these systems, the employer shall develop and implement a fall protection plan, which will meet requirement set forth by FIP's Safety Director and OSHA standards. This option is available only to employees engaged in leading edge work, precast concrete erection work, or residential construction work.

Each employee reaching more than 10" below the level of the walking or working surface on which they are working shall be protected by a guardrail, netting or a personal arrest system.

Each employee working on, at, above or near wall openings where the outside bottom edge of the wall opening is 6' or more above lower levels and the inside bottom edge of the wall opening is less than 39" above the working or walking surface shall be protected by the use of a guardrail, netting or personal fall arrest system.

At all other breaks in elevation of 18" or more, a stairway or ladder shall be provided at all personal points of access.

When an employee is exposed to falling objects, the use of toe boards or screens on guardrail systems must be implemented. Other means could either be a canopy below or barricading off the area in question.

All employees using aerial lifts shall be required to wear lanyards and body harnesses.

11.1 GENERAL OPERATING PROCEDURES

- Fall protection needed after 6' (except ladders).
- Subcontractors to provide their employees with personal fall arrest systems.
- Body belts are not allowed for fall arrest system.
- Subcontractors shall train employees on the use and hook-up of fall arrest systems.
- Only locking snap hooks can be used.
- The subcontractor's Competent Person shall check fall arrest systems prior to usage.
- FIP's Safety Representative, prior to start of work, must approve all alternative fall protection plans.
- The subcontractor must set up a controlled access zone ("CAZ") when an alternate fall protection plan is used.
- The CAZ shall be defined by a control line erected not less than 10' nor more than 15' from the working edge.
- The subcontractor shall supply FIP a list of names of trained employees working in the CAZ.
- When working on ladder, your body must be parallel to the ladder rungs.
- No reaching over when using ladders.
- All openings in floors on walking/working surfaces shall be covered.
- Perimeter protection shall be in place.

11.2 GUARDRAIL SYSTEM

Each guardrail system shall comply with the following provisions:

Top rail shall be 42" plus or minus 3" above the walking/working level. This rail should be able to withstand, without failure, a force of 200 pounds in any outward and downward direction.

Mid rails shall be installed at a height midway between the top edge of the guardrail system and the walking/working level. When screen or mesh is used, they shall extend from the top rail to the walking/working surface and along the entire opening between rail supports.

Toe boards shall be 3½" high and shall extend along the entire opening between rail supports.

If wire rope is used, it should be a minimum of 3/8". Also, the top rail must be flagged at not more than 6' intervals with a high-visibility material.

11.3 SAFETY NET SYSTEMS

Safety net systems and their uses shall comply with the following provisions:

- Safety nets shall be installed as close as practicable under the walking/working surface, but in no case more than 25' below such level.
- Safety nets shall extend outward from the outermost projection of the work surface as follows:

VERTICAL DISTANCES FROM WORKING LEVEL TO HORIZONTAL PLANE OF NET	MINIMUM REQUIRED HORIZONTAL DISTANCE OF OUTER EDGE OF NET FROM THE EDGE OF THE WORKING SURFACE
Up to 5'	8'
More than 5' up to 10'	10'
More than 10'	13'

- Safety nets will be installed with sufficient clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to 400 pounds.
- Defective nets shall not be used.
- Safety nets shall be inspected at least once a week for wear, damage and other deterioration. Defective components shall be removed from service.
- Safety nets shall also be inspected after any occurrence which could affect the integrity of the safety net system.
- Safety net installations shall be drop-tested at the job site after initial installation and before being used as a fall protection system.
- The drop test shall consist of a 400 pound bag of sand 30+ or -2" in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than 42" above that level.
- When the subcontractor can demonstrate that it is unreasonable to perform the drop test, the subcontractor (or a subcontractor's designated Competent Person) shall certify that the net and net installation are in compliance by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date it was determined the identified net and net installation were in compliance with CFR 1926.502(c)(3), and the signature of the person making the determination and certification. The most recent certification record for each net and net installation shall be available at the job site for inspection.

11.4 PERSONAL FALL ARREST SYSTEMS

Personal fall arrest systems and their use shall comply with the provisions set forth below:

- Connectors shall be dee-rings with a minimum tensile strength of 5,000 pounds.
- Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds when they are fully extended.
- Self-retracting lifelines and lanyards, which automatically limit free-fall distance to 2' or less, shall have a minimum breaking strength of 3,000 pounds.
- Anchorage used for attachment of personal fall arrest equipment shall be capable of supporting 5,000 pounds.
- Personal fall arrest systems shall not be attached to a guardrail system.
- The attachment point of the body harness will be located in the center of the wearer's back near shoulder level. (Body belts are not an acceptable part of a personal fall arrest system.)
- Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration.
- Positioning devices will not be used unless the subcontractor can demonstrate that conventional fall protection systems cannot be used. At that time, the subcontractor will meet with FIP's safety team to review all the standards related to the usage of position devices.
- Positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds whichever is greater.
- Positioning device systems shall be inspected prior to each use for wear, damage, and other deterioration; defective components shall be removed from service.
- Positioning devices shall be rigged such that an employee cannot free fall more than 2'.
- Subcontractors using positioning devices shall have two (2) points of anchorage.

11.5 ALTERNATIVE FALL PROTECTION PLAN

This option is available only to employees engaged in leading edge work, precast concrete erection work, or residential construction work who can demonstrate that it is infeasible or it creates a greater hazard to use conventional fall protection equipment. The fall protection plan must conform to the following provisions.

- The fall protection plan shall be prepared by a qualified person and developed specifically for the site where the leading edge work, precast concrete work, or residential construction work is being performed.
- The plan must be maintained up to date.
- Any changes to the fall protection plan shall be approved by FIP.
- A copy of the fall protection plan with all approved changes shall be maintained at the job site.
- The implementation of the fall protection plan shall be under the supervision of the subcontractor's Competent Person.
- The fall protection plan shall document the reasons why the use of conventional fall protection systems (guardrail systems, personal fall arrest systems, or safety nets systems) are infeasible or why their use would create a greater hazard.
- The fall protection plan shall include a written discussion of other measures that will be taken to reduce or eliminate the fall hazard for workers who cannot be provided with protection from the conventional fall protection systems.
- The fall protection plan shall identify each location where conventional fall protection methods cannot be used.
- These locations shall then be classified as controlled access zones.
- Where no other alternative measure has been implemented, the employer shall implement a safety monitoring system in conformance with CFR 1926.502(h).

- The fall protection plan must include a statement which provides the name or other method of identification for each employee who is designated to work in controlled access zones.
- No other employees may enter controlled access zones.

11.6 ACCIDENT INVESTIGATIONS

All accidents resulting in injury to workers, regardless of their nature, shall be investigated by FIP's Project Superintendent and Safety Director. It is an integral part of any safety program that documentation take place as soon as possible so the cause and means of prevention can be identified to prevent reoccurrence. In the event that a subcontractor's employee falls or there is some other related, serious incident occurring, this plan shall be reviewed by FIP's safety team to determine if additional practices, procedures or training need to be implemented to prevent similar types of falls or incidents from accruing.

11.7 CHANGES TO THE PLAN

Any changes to the plan will be approved by FIP's Safety Director. This plan shall be reviewed by a qualified person as the job progresses to determine if additional practices, procedures or training need to be implemented by the Competent Person to improve or provide additional fall protection. Subcontractors shall notify and train their employees, if necessary, in the new procedures. A copy of this plan and all approved changes shall be maintained at the job site.

11.8 TRAINING

All FIP subcontractors shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards. The employer shall assure that each employee has been trained, as necessary, by a Competent Person qualified in the following areas:

- The nature of fall hazards in the work area.
- The correct procedures for erecting, maintaining, disassembling and inspecting the fall protection systems to be used.
- The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used.
- What to look for during the daily inspection of equipment.
- The role of each employee in the safety monitoring system when this system is used.
- The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs.
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection.
- The role of employees in fall protection plans.

11.9 CERTIFICATION OF TRAINING

The subcontractor shall verify compliance with CFR 1926.503(a) by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the subcontractor. The latest training certification shall be maintained.

11.10 RETRAINING

When the employer has reason to believe that any affected, previously-trained employee does not have the understanding and skill required by Paragraph CFR 1926.503(a), the employer shall retrain each such employee. Circumstances under which retraining is required include, but are not limited to, situations where:

- Changes in the workplace render previous training obsolete.
- Changes in the types of fall protection systems or equipment to be used render previous training obsolete.
- Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

11.11 ENFORCEMENT

Constant awareness of and respect for fall hazards, and compliance with all safety rules are considered conditions of employment at FIP's construction site. FIP's Project Superintendent reserves the right to issue warnings to subcontractors for failure to follow the guidelines of this program. The three-strike policy will be in place due to the hazards.

12.0 DUST CONTROL PROGRAM

During all phases of construction, employees can be exposed to different types of dust particulates. To minimize exposure which can reach permissible exposure limits set forth by regulatory agencies, engineering controls shall be used.

This program highlights types of dust created by construction activities and engineered controls which FIP employees and its subcontractors shall follow on all FIP construction projects.

Operations which create hazardous dust and type of hazard:

- Demotion: General construction debris, silica hazard
- Concrete: Silica exposure
- Masonry: Silica exposure
- Floor and Wall Tile: Silica exposure
- Drywall and Cement Boards: Silica exposure and fine dust which create housekeeping issues
- Woodworking: Fine dust creates combustible hazard and housekeeping issues
- Site Work: Silica exposure to both employees and the general public, and creates housekeeping issues to neighboring residences and businesses.

12.1 DEMOLITION

Demolition exposes employees, and sometimes the general public, to a wide variety of general types of dusts which can pose a hazard. Engineered controls will be used in all demolition activities which include, but shall not be limited to, the following:

- Ventilation by use of a negative air machine to filter out dust before being disbursed into the atmosphere.
- Use of a HEPA vacuum with tools with shields/shrouds when cutting or drilling into concrete, masonry, plaster and bituminous products or materials.
- When proper conditions allow, water supply shall be used to wet cut or drill into concrete, masonry, plaster and bituminous products or materials. Water shall be used when demolition of a building takes place.

12.2 CONCRETE, MASONRY AND TILE

Concrete products contain Crystalline Silica and exposure from dust is possible. Engineering controls shall be used to eliminate the exposure to employees and the general public

- Water shall be used when cutting and drilling into or through concrete and masonry.
- When water cannot be used, a shroud shall be used around the blade with a port to hook up to a HEPA vacuum.
- CMU, brick and tile being cut via table saw shall have a working water pump to maintain a wet cut. Under no circumstances shall cutting on a table saw be done dry.

12.3 DRYWALL

Drywall, joint compound and concrete boards all contain Crystalline Silica and exposure from dust is possible. Engineering controls shall be used to eliminate the exposure to employees and the general public.

- Use of a power saw to cut drywall or concrete panels is prohibited unless water or a shroud are used over the saw blade and hooked up to a HEPA vacuum.
- Any sanding of drywall joint compound shall be done with tools that have means of being hooked to a HEPA vacuum and is used in such manner.
- During clean-up operations, a dust down product shall be used to reduce the production of dust.

12.4 WOODWORKING

Woodworking produces a different type of hazard on the projects. Fine dust from table saws, compound saws and sanders create a combustible hazard. Respiratory hazards also exist from fine dust particles, and some woods can pose a real health hazard. Since most woodworking operations happen at the end of the project, many finish products are already installed and this creates unnecessary wood product dust throughout the site. The following engineered controls shall be implemented, but shall not be limited to the following:

- All woodworking equipment (i.e. table saws, radial arm saws, compound saws) shall be attached to a dust collection system which uses a HEPA vacuum.
- If controls cannot be used, all work shall be done outside away from the general public and openings into the building.
- During clean-up operations, a dust down product shall be used to reduce the production of dust.

12.5 SITE WORK

When site work starts, there is always an issue from dust being kicked up by wind, equipment and vehicle traffic. When the dust gets airborne, it creates exposure to employees on site and possibly the general public. Also, when the dust blows off site onto adjacent structures and vehicles, there is a clean-up issue. The following shall be used as a guide to eliminate or reduce this exposure.

- Keep as much vegetation in place to reduce the amount of exposed soil.
- The use of a water truck in all areas of vehicle traffic (this might have to be done multiple times a day).
- When long-term spoils piles are required, vegetation will be used as a dust down control.

12.6 ENFORCEMENT

Work will be stopped if employees and contractors do not follow the Dust Control Program.

13.0 CORRECTIVE ACTION PROGRAM (FIP EMPLOYEES)

This corrective action procedure is designed to provide a uniform, manageable and fair method of correcting problems created by those employees who fail to observe established rules of conduct and standards of performance. The objective of this program is:

- To assure fair and equal treatment for all employees.
- To assure that a consistent approach to corrective action is used and understood by all FIP Construction, Inc. employees.
- To provide for higher management review of severe disciplinary actions.
- To provide documentation of the type and nature of all disciplinary action.

A five-step progressive discipline procedure will normally be used in taking corrective action so that employees will have an opportunity to correct performance. There are a number of acts of misconduct, however, that are customarily known as being serious violations of unacceptable behavior and will result in immediate dismissal.

13.1 CORRECTIVE ACTION STEPS

The progression established below represents FIP Construction, Inc.'s normal pattern of progressive, corrective action. In the case of severe infractions of Company rules, any of the steps in the procedure may be bypassed depending upon the circumstances of the incident. To bypass steps in the procedure, the approval of the Safety Director and Vice President must first be obtained.

The steps in the corrective action procedure are:

1. Counseling
2. Second Counseling
3. Written Warning
4. Final Warning (may include disciplinary suspension of 1 day to 2 weeks)
5. Termination

The Supervisor must complete the recommendation for corrective action form except for the employee's explanation and obtain approvals prior to engaging each step of the procedure. All corrective action will normally take place within 48 hours of the incident. The procedure at each step is as follows:

13.2 STEP 1 - COUNSELING

The Supervisor will discuss the problem with the employee to help him/her understand their performance or the rule/policy they have violated and the nature and impact of the misconduct. In addition, the Supervisor will provide instruction/counsel to help the employee correct unsatisfactory performance. The Supervisor is the approving party at the counseling step and he/she should give a copy of the recommendation form to the Safety Director and the employee.

13.3 STEP 2 - SECOND COUNSELING

If instruction/counsel does not correct the situation, the Supervisor will re-instruct the employee to help him/her correct unsatisfactory performance. During the second counseling session, the employee should be advised that failure to correct or improve the situation that lead to the counseling may subject him/her to disciplinary action up to and including discharge. The Safety Director and the Vice President must approve action for second

counseling and an approved copy of the recommendation for corrective action form should be given to the Safety Director and the employee.

13.4 STEP 3 - WRITTEN WARNING

The warning serves to firmly call the employee's attention to continued unsatisfactory performance. The Supervisor must complete the recommendations for corrective action form and obtain the approval of the Safety Director and Vice President. Once approved, the cause and corrective action should be recorded on the warning letter and discussed with the employee. During the discussion, the employee should be advised that failure to correct or improve the situation that lead to the written warning may subject him/her to disciplinary action up to and including discharge. This third step may also be appropriate, in some cases, for employees who violate one of the serious violations as previously stated in this policy. A copy of both the recommendation for corrective action form and the warning letter should be given to the Safety Director and to the employee.

13.5 STEP 4 - FINAL WARNING

The final warning serves to discipline an employee for continued unacceptable performance or an infraction from the list of serious violations. A final warning is often accompanied by a disciplinary suspension without pay for a minimum of one day to a maximum of two weeks. A recommendation for corrective action form is prepared by the Supervisor and together with the department file will be reviewed by the Safety Director and the Vice President. With these approvals, a final warning letter and any associated disciplinary action will be given to the employee. The employee should be advised that failure to correct or improve the situation that lead to the final warning may subject him/her to disciplinary action up to and including discharge. A copy of both the recommendation for corrective action form and the final warning letter should be given to the Safety Director, Vice President and the employee.

13.6 STEP 5 - TERMINATION

Termination results from an employee's continued failure to adhere to rules of employee conduct or to corrective unsatisfactory performance instructions despite prior corrective discipline; or reflects a serious infraction of the rules of employee conduct which warrants immediate dismissal. A Supervisor will not terminate an employee without prior review and approval. If the employee's behavior warrants removal from the premises, the Vice President will suspend the employee without pay pending a complete investigation.

A recommendation for corrective action form is prepared by the Supervisor and together with the department file will be reviewed and approved by the Safety Director, Vice President and Personnel Manager. With these approvals and a termination letter, the Personnel Manager (or other designated person) will discharge the employee. A copy of the corrective action form and the termination letter should be given to the Safety Director, Vice President, Personnel Manager and the employee.

13.7 OTHER

Normally, if there is no recurrence of a behavior to the extent that it requires a higher level of corrective action within a twelve month period, the problem is assumed to have been corrected. A recurrence after twelve months will normally start the action at the first step of the procedure. Employees can use the "open door" policy to talk to progressively higher levels of management at any or all steps of the corrective action procedure.

13.8 SUBCONTRACTOR ENFORCEMENT

FIP Construction, Inc. representatives reserve the right to enforce all requirements set forth in this program, Federal, State or local government regulations and/or owner policies. Dismissal of employees and termination of contracts are final means of enforcement. Legal action will be taken for incidents that call for that action. The intent of these guidelines are to make all employees aware of the minimum requirements of the project and to provide a safe, secure place to work.

Corrective Action Steps

The progression established below represents FIP Construction, Inc.'s normal pattern of progressive, corrective action for subcontractors and their employees. In the case of severe infractions of Company rules, any of the steps in the procedure may be bypassed depending upon the circumstances of the incident. To bypass steps in the procedure, the approval of the Safety Director and Vice President must first be obtained.

The steps in the corrective action procedure are:

1. Verbal Warning
2. Written Warning
3. Final Warning & Termination

The supervisor must complete the recommendation for corrective action form except for the employee's explanation and obtain approvals prior to engaging each step of the procedure. All corrective action will normally take place within 48 hours of the incident. The procedure at each step is as follows:

Step 1 - Verbal Warning

FIP's Superintendent and the subcontractor's supervisor will discuss the problem with the employee to help him/her understand their performance or the rule/policy they have violated and the nature and impact of the misconduct. In addition, the subcontractor's supervisor will provide instruction/counsel to help the employee correct unsatisfactory performance. The project superintendent is the approving party at the counseling step and he/she should give a copy of the recommendation form to the Safety Director and the employee.

Step 2 - Written Warning

The warning serves to firmly call the employee's attention to continued unsatisfactory performance. The contractor's supervisor must complete the recommendations for corrective action form and obtain the approval of FIP's Superintendent, Safety Director and Vice President. Once approved, the cause and corrective action should be recorded on the warning letter and discussed with the employee. During the discussion, the employee should be advised that failure to correct or improve the situation that lead to the written warning may subject him/her to disciplinary action up to and including discharge. This second step may also be appropriate, in some cases, for employees who violate one of the serious violations listed earlier in this policy. A copy of both the recommendation for corrective action form and the warning letter should be given to the Safety Director and to the employee.

Step 3 - Final Warning and Termination from FIP Projects

The final warning serves to discipline an employee for continued unacceptable performance or an infraction from the list of serious violations. A final warning is accompanied by termination from FIP projects. A recommendation for corrective action form is prepared by the Supervisor and together with the department file will be reviewed by the Safety Director and the Vice President. With these approvals, a final warning letter and any associated disciplinary action will be given to the employee. A copy of both the corrective action form and the final warning letter should be given to the Safety Director, Vice President and the employee.

13.9 NOTICE OF CORRECTIVE ACTION REQUIREMENT

FIP Construction, Inc. representatives will provide the minimum requirements set forth in this program, by Federal, State or local government regulations and/or owner policies will provide a *Notice of Corrective Action Requirement* letter to all subcontractors who fail to meet the minimum requirements as described above. It must be pointed out to the subcontractor in no uncertain terms that he is responsible for the safety of his employees, subcontractors, and his subcontractor's employees while they are working on or for an FIP Construction, Inc. project. FIP Construction, Inc. makes no attempt to determine whether or not any place of employment, working condition or practice complies with all Federal, State or local laws, regulations or standards pertaining to safety and health.

**NOTICE OF FIP SAFETY & HEALTH VIOLATION:
VERBAL WARNING**

DATE:	
PROJECT NAME & NO.:	
PERSON IN VIOLATION:	
SUBCONTRACTOR:	
PERSON IN CHARGE:	
You are hereby advised that you are in violation of OSHA Regulations Section 29 CFR 1926. _____.	
This is the first step in FIP Construction, Inc.'s Corrective Actions. If the employee continues to disregard OSHA's, FIP's and Owner's policies, a written warning will be issued.	
It is the responsibility of _____ to correct the violation without delay.	
Comments/Violation Description:	
ACKNOWLEDGED:	ACKNOWLEDGED:
_____	_____
FIP Superintendent	Agent for Subcontractor

FIP Safety Representative	

**NOTICE OF FIP SAFETY & HEALTH VIOLATION:
FINAL WARNING & TERMINATION**

DATE:	
PROJECT NAME & NO.:	
PERSON IN VIOLATION:	
SUBCONTRACTOR:	
PERSON IN CHARGE:	
You are hereby advised that you are in violation of OSHA Regulations Section 29 CFR 1926. _____.	
This is the final step in the FIP Corrective Actions. The employee will be removed from the project.	
It is the responsibility of _____ to train all on-site employees to avoid further violations.	
Comments/Violation Description:	
ACKNOWLEDGED:	ACKNOWLEDGED:
_____	_____
FIP Superintendent -	Agent for Subcontractor

FIP Safety Representative	



FIP Construction, Inc.

308 Farmington Avenue
Farmington, CT 06032
203.271.0356 t
203.272.5073 f
www.fipconstruction.com

ACCIDENT INVESTIGATION REPORT

DATE:

(Bold Classification)

Classification (select one):

Major Injury

Recordable Injury/Illness

Lost Work Day

Near Miss

(Select appropriate near miss)

fire hazard

explosion

hazardous materials release

fall hazard

electrical hazard

housekeeping

Location:

Report Number:

Name(s) and Company of the Injured:

Date of the Incident:

Time of the Incident:

LOCATION OF THE INCIDENT:

TYPE OF ACCIDENT (DESCRIBE):

NATURE OF THE INJURY:

ANTICIPATED DISABILITY:

PREVIOUS WARNINGS:

FUTURE SAFETY MEASURES:

WITNESSES:

ACCIDENT INVESTIGATION REPORT by:

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER

CONSTRUCTION MANAGEMENT

DESIGN BUILD

GENERAL CONTRACTING

14.1 ACCIDENT INVESTIGATION REPORT/DETAILED SUMMARY REPORT

Incident Description/Accident Description

A chronological narrative in the degree of detail necessary to present a clear understanding of the pertinent events leading up to, in the course of, and following the accident as reconstructed.

Findings

Pertinent facts and information collected by the committee as a result of interviews, field observation and analysis of data.

Causes

This section should indicate the committee's opinion as to the primary cause(s) of the accident. It should consist of concise statements indicating the committee's consideration of any unsafe condition, unsafe personal factor, or unsafe act involved.

Discussion

This section is reserved for any comments that the committee feels are pertinent to helping the reader improve his understanding of the accident or the recommendations.

Recommendations

Care should be exercised to make the recommendations practical and specific. The committee is not expected to perform engineering or design.



**State of Connecticut
Workers' Compensation Commission**

Send this form to: Workers' Compensation Commission, 21 Oak Street, Hartford, CT 06106-8011

Rev. 7-13-2009

FRI

Employer's First Report of Occupational Injury or Illness

File pursuant to C.G.S. § 31-316 for injuries that result in INCAPACITY FOR ONE DAY OR MORE. Please TYPE or PRINT IN INK.

Date filed in Chairman's Office

(for WCC use only)

Employer (Name, Address & Zip)		Phone #	Carrier / Administrator Claim #	OSHA Log Case #	Report Purpose Code
SIC Code		FEIN	Jurisdiction	Jurisdiction Claim #	
Carrier (Name, Address & Zip)		Phone #	Employer's Location Address (if different)		Phone #
Claims Administrator (Name, Address & Zip)		Phone #			
Policy / Self-Insured #	<input type="checkbox"/> Check, if Self-Insured		Policy Period (MM/DD/YYYY) FROM: TO:		
Employee: Last Name	First Name	Middle Name	Gender	Date Hired (MM/DD/YYYY)	State of Hire
D.O.B. (required)	Phone #		<input type="checkbox"/> Male	Occupation / Job Title	
Address (incl. Zip)		<input type="checkbox"/> Female		Rate of Pay \$ _____ per	NCCI Class Code
				<input type="checkbox"/> Hour <input type="checkbox"/> Day <input type="checkbox"/> Week <input type="checkbox"/> Bi-Weekly <input type="checkbox"/> Other	
Date of Injury / Illness (MM/DD/YYYY)	Town of Injury / Illness		Physician / Health Care Provider (Name, Address & Zip)		
Time Employee Began Work	<input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	Did Injury / Illness occur on Employer's Premises?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Time of Occurrence	<input type="checkbox"/> cannot be determined <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	Type of Injury / Illness			
Date Employer Notified (MM/DD/YYYY)	Part of Body Affected		Hospital (Name, Address & Zip)		
Date Disability Began (MM/DD/YYYY)	Type of Injury / Illness Code				
Date Last Worked (MM/DD/YYYY)	Part of Body Affected Code				
Date Return(ed) to Work (MM/DD/YYYY)	Were Safeguards or Safety Equipment provided?		<input type="checkbox"/> Yes <input type="checkbox"/> No		
If Fatal, Date of Death (MM/DD/YYYY)	If provided, were they used?		<input type="checkbox"/> Yes <input type="checkbox"/> No		
All equipment, materials, and/or chemicals employee was using when accident or illness exposure occurred:	How Injury / Illness Occurred — Describe the sequence of events, including any objects or substances that directly injured the employee or made the employee ill.		Initial Treatment		
Specific activity and/or work process employee was engaged in when accident or illness exposure occurred:			<input type="checkbox"/> No Medical Treatment <input type="checkbox"/> Emergency Care		
Contact Name			<input type="checkbox"/> Minor — by Employer <input type="checkbox"/> Hospitalized More Than 24 Hours		
Phone #	Cause of Injury Code		<input type="checkbox"/> Minor — by Clinic / Hospital <input type="checkbox"/> Future Major Medical — Lost Time Anticipated		
Date Administrator Notified (MM/DD/YYYY)		Date Prepared (MM/DD/YYYY)			
Preparer's Name & Title		Phone #			

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name _____
 City _____ State _____

Identify the person			Describe the case			Classify the case														
(A)	(B)	(C)	(D)	(E)	(F)	Using these four categories, check ONLY the most serious result for each case:		Enter the number of days the injured or ill person was:		Check the "injury" column or choose one type of illness:										
Case no.	Employee's name	Job title (e.g., Welder)	Date of injury or onset of illness	Where the event occurred (e.g., Loading dock north end)	Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm, from acetylene torch)	Death	Days away from work	Job transfer or restriction	Remained at work	(G)	(H)	(I)	(J)	(K)	(L)	(1)	(2)	(3)	(4)	(5)
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____ / _____ / _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

OSHA's Form 300A

Summary of Work-Related Injuries and Illnesses



Year 20 _____

U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths _____ Total number of cases with job transfer or restriction _____ Total number of other recordable cases _____

(G) _____ (H) _____ (I) _____ (J) _____

Number of Days

Total number of days of job transfer or restriction _____ Total number of days away from work _____

(K) _____ (L) _____

Injury and Illness Types

Total number of . . . _____
(M) _____
(1) Injuries _____ (4) Poisonings _____
(2) Skin disorders _____ (5) All other illnesses _____
(3) Respiratory conditions _____

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspect of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-5634, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name _____

Street _____

City _____ State _____ ZIP _____

Industry description (e.g., *Manufacture of motor truck trailers*) _____

Standard Industrial Classification (SIC), if known (e.g., *SIC 3715*) _____

Employment information (If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees _____

Total hours worked by all employees last year _____

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive _____ Title _____
Phone _____ / / Date _____

15.0 HAZARD COMMUNICATION PROGRAM

It is the intention of FIP Construction, Inc. to comply fully and in a prudent manner with all occupational safety and health standards/regulations. Consequently, this program to comply with the Department of Labor, Occupational Safety and Health Administration's Hazard Communication Standard 29 CFR 1910.1200 and 29 CFR 1926.59 is implemented and shall be enforced.

This program has been established to provide guidelines for all employees and for FIP Construction, Inc. to meet the requirements of the Hazard Communication Standard. The program applies to any hazardous chemicals, which are known to be present on the premises to which employees may be exposed under normal conditions of use or in a foreseeable emergency. This written Hazard Communication Program will be available to all employees in the job field office for review at all times.

15.1 RESPONSIBILITY

Management

Develop a written hazard communication program. Provide the equipment, personnel and other resources necessary to make the program viable.

Safety Director

- Administer the program for the corporation.
- Establish generic and specific training for employees and supervisors.
- Establish an initial list of hazardous chemicals and be responsible for periodic updates.
- Collect Material Safety Data Sheets (MSDS) or manufacturer's statement of non-coverage by the standard on all materials in stock prior to the effective date of the standard.
- Maintain a master file of MSDSs or manufacturer's statement of non-coverage of all materials in use.
- Updating MSDSs as new ones become available or new products are used.
- Check all MSDSs received for obvious errors such as items not filled in on the form.

Purchasing

- Notify all vendors it is a condition of purchase to furnish a MSDS or statement that the standard does not apply to the particular product with material shipments to the job site and a copy to the office attached to the invoice.
- Inform the Safety Director of new materials purchased and to furnish copies of MSDSs or non-coverage statements obtained with the purchase orders.

Yard Personnel

- See that all materials received carry manufacturer's labels.
- Insure all materials shipped to the job site are labeled.

Project Superintendent

- Post all furnished notices in visible places on the job site (e.g. trailer bulletin board).
- Instruct employees as directed by Safety Director and the Written Hazard Communication Program.
- Provide information to employees and to other employers at their request about materials you are using and to which their employees are exposed.
- Inform the Safety Director of all training activities and requests for information from other employers.

All Employees

- Attend all company sponsored training meetings.
- Review the MSDSs for any chemical they are using before the first use at each project.
- Use all protective equipment and work practices prescribed for covered materials.
- Protect all labels, posters and MSDSs from damage and keep in readable condition.

Subcontractor and Vendor

- Must present a Written Hazard Communication Program to Project Superintendent prior to beginning contracted work. The written program must be accompanied by copies of all MSDSs for all products and materials, regulated by the OSHA standard, that will be used on the construction project.
- Shall submit a list of all hazardous chemicals their company intends to use on the project, as well as a list from their subcontractors and suppliers, regardless of tier, to the FIP Construction, Inc. Project Superintendent.
- Ensure that new products delivered to the construction project are properly labeled in accordance with the OSHA standard and that an MSDS accompanies the delivery and is provided to the Project Superintendent.

15.2 HAZARDOUS CHEMICALS LIST

FIP Construction, Inc. has established and will maintain a list of all the hazardous chemicals used on the premises. The Safety Director will be responsible for maintenance of this list. This master list serves as an index to the MSDSs on file in the following section of this Safety & Health Program manual.

15.3 LABELING OF HAZARDOUS CHEMICALS

Each container containing a hazardous chemical will be labeled with the identity and the appropriate hazard warning of the contents. In addition, those containers containing hazardous chemical(s) when received from a supplier or shipped to a customer will also have the name and address of the manufacturer or the responsible party.

It is the responsibility of FIP's Superintendent to assure that the identity and the hazard warnings are placed on all containers that have been transferred from the original drum or container. Also, it is the responsibility of FIP's Superintendent to assure that the identity, the hazard warnings, and the name and address of the supplier are on the received/shipped container(s).

There are presently no alternatives to labeling.

15.4 MATERIAL SAFETY DATA SHEETS (MSDS)

The MSDS file will contain an MSDS for every hazardous chemical used on the premises. These sheets will be available to employees at all times. The MSDS file for this facility are kept in the offices of:

- FIP's Superintendents (field)
- Safety Director (main office)

Employees wishing to gain access to the MSDS file or a copy of MSDSs for specific chemical(s) should contact the Project Superintendent or the corporate Safety Director.

15.5 INFORMATION & TRAINING

It is the policy of FIP Construction, Inc. to provide an information and training program to all employees with the implementation of this program, at the time of a new employee's initial assignment, and whenever a new hazard is introduced into the workplace.

This information and training program will include:

1. Requirements of 29 CFR, 1910.1200/29 CFR 1926.59.
2. Any operations in employees' work areas where hazardous chemicals are present.
3. Location and availability of the written hazard communication program, the list of hazardous chemicals and MSDSs.
4. Means of detecting the presence or release of hazardous chemicals in the work area.
5. Physical and health hazards of the chemicals in the area.
6. Measures employees can take to protect themselves from these hazards.
7. Explanation of the labeling system and the material safety data sheet.
8. Emergency procedures.
9. Details of the written hazard communication program developed by the employer.

15.6 CONTRACTOR WORK

When it is necessary for an outside contractor to perform work at FIP Construction, Inc.'s job site, it shall be the responsibility of FIP's Superintendent to inform the contractor of the identity of any hazardous chemicals to which the contractor may be exposed. The procedure for informing the contractor will include the following:

- A. Making the hazardous chemicals inventory of any designated work area where contract work is being performed available to the contractor and advises the contractor of the labeling system.
- B. Making the MSDSs of the identified hazardous chemicals in a designated work area available to the contractor.
- C. Making the contractor aware of the appropriate protective measures taken by FIP Construction, Inc.'s employees in a designated work area.

It is also the responsibility of FIP's Superintendent to determine if the contractor will be using any hazardous chemicals and, if so, to take appropriate actions to assure the protection of FIP Construction, Inc.'s employees.

15.7 HAZARD OF NON-ROUTINE TASKS

Prior to starting work on hazardous non-routine tasks, every affected employee will be given information by FIP's Superintendent about the hazardous chemical(s) to which they may be exposed. Such information will include, but not be limited to, specific hazards associated with the chemical(s), protective measures (i.e. PPE, work practices, engineering controls, etc.), and emergency procedures.

15.8 CHEMICALS IN UNLABELED PIPES

Work activities are sometimes performed by employees in areas where chemicals are transferred through unlabeled pipes.

Prior to starting work in these areas, the employee shall contact the Project Manager for information regarding:

- The chemical in the pipes
- Potential hazards
- Safety precautions which should be taken (a copy of this program will be made available, upon request, to employees and their representatives)

15.10 ASBESTOS REMOVAL

This section applies to all construction work including, but not limited to the following:

- Demolition or salvage of a structure where asbestos is present.
- Removal or encapsulation of materials containing asbestos.
- Construction, alterations, repairs, maintenance or renovations of structures or portions thereof that contain asbestos.

It is the policy of FIP that all asbestos removal will be done by a competent, licensed contractor who is capable of identifying existing asbestos hazards in the workplace and who has the authority to take prompt corrective measures to eliminate them.

Before any action is taken concerning asbestos removal, an asbestos abatement plan should be developed and submitted. This plan should minimally contain the following:

1. Physical description of the work area
2. Approximate amount of asbestos to be removed
3. Schedule of turning off and sealing existing ventilation systems
4. Personal hygiene procedures
5. Labeling procedures
6. Personal protective equipment to be worn
7. Exhaust ventilation system to be used
8. Method used to remove asbestos-containing material
9. Wetting agent to be used
10. Any sealant to be used at the end of the project
11. An air-monitoring plan
12. Method to be used to transport waste material
13. Location of dumpsite

This contractor should also abide by all the contents of the FIP Safety & Health Program and 29CFR 1926.58 Asbestos.

16.0 CONSTRUCTION SAFETY TALKS