"The safety and health of our employees is our top priority. Everyone goes home safe and healthy – every day."

# **Construction Safety and Health Program**





# WINDSOR COMPANIES

**FEBRUARY 2020** 

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### **Mission Statement**

At Windsor Companies people are our most important asset. It is our strongest desire that everyone goes home safe and healthy every day. The company safety and health program has complete and total management support from every level. We will make every effort to ensure the safety of our employees at all of our facilities.

The responsibility for the safety and health program ranges from the most senior executive to the newest employee. Even if it is your first day on the job, you have the power, and the responsibility, to stop work if you believe safety may be compromised. Safety is a cooperative effort of all employees to identify and eliminate hazards in the workplace. Our safety program is based on three simple principles:

### **Identification of Hazards**

It is the responsibility of every employee to continuously monitor his or her work environment for potential hazards. Once identified these hazards must be immediately reported.

### **Elimination of Hazards**

Management and employees will make every effort to eliminate identified hazards from the workplace.

### **Protection from Hazards**

If a hazard cannot be eliminated from the workplace management will provide personal protective equipment or management and engineering controls to protect employees from these hazards. These will only be used if the hazard cannot be eliminated from the workplace.

Management is responsible for providing tools, equipment, process engineering controls, and other items that are required to work safely. It is the responsibility of the employees to use the proper equipment, follow prescribed processes, and work in a safe and productive manner.

It is our belief that any safety and health program must have total employee involvement. Therefore, this program has management's highest priority, support, and participation.

# PRODUCTION IS NOT SO URGENT THAT WE CANNOT TAKE TIME TO DO OUR WORK SAFELY. DO NOT BE AFRAID TO STOP WORK IF SAFETY IS IN QUESTION.

Thank you for taking the time to review these important safety policies. If you have any questions, be sure to ask them to your supervisor. Thanks for your time and please remember to work safe.

Sincerely,	
Windsor Companies President	

### **Employee Rights**

"Every employee has a right to a workplace that is free from recognized hazards that are causing or likely to cause death or serious physical harm to employees."

### All workers have a right to:

- A safe workplace.
- Raise a safety and health concern with the company or OSHA.
- Report a work-related injury or illness without fear of retaliation.
- Receive information and training on job hazards, including hazardous substances in the workplace.
- Request an OSHA inspection of the workplace if you believe it is unsafe.
- Participate in an OSHA inspection and speak to the inspector in private.
- File a complaint with OSHA.
- See any OSHA citations issue to your employer.
- Request copies of medical records, tests that measure hazards in the workplace, and the workplace injury and illness log.



### Goals of the Safety and Health Plan

The company has created this safety and health plan to meet the following goals:

- 1. To maintain a workplace that is free from recognized hazards that may cause serious injury or illness.
- 2. To create an environment where employees feel comfortable reporting safety and health concerns.
- 3. To provide clear direction on how to communicate with management on safety and health concerns.
- 4. To solicit feedback and suggestions from employees on following and improving this program.
- 5. To include safety and health as a routine part of business operations.
- 6. To empower all employees to stop work at any time they feel their safety or health is in jeopardy.

### Safety and Health Plan Basic Principles

The company is completely committed to the safety and health of all employees. It is our priority that every employee goes home safe, every day.

### Management Commitment and Responsibilities

Our strong safety culture is achieved through collaboration and cooperation of employees and management. Management provides the resources for our safety program, and is committed to the following general responsibilities:

- 1. To provide a work environment that protects employees from occupational injuries and illnesses.
- 2. To design, implement, and monitor company safety policies and procedures.
- 3. To lead annual reviews in company safety programs and procedures, and to make corrections and improvements as necessary.
- 4. To provide methods for employee feedback and input on company safety and health programs.
- 5. To ensure that periodic work hazard assessments are conducted.
- 6. To set safety and health improvement goals and create action plans for achieving those goals.
- 7. To clearly establish the safety and health responsibilities of all employees, and to include them in written job descriptions.
- 8. To provide required safety and health training to employees.
- 9. To include safety and health as part of employee periodic evaluations.
- 10. To ensure that visitors receive appropriate training on the hazards they will be exposed to.
- 11. To ensure that contractors employed on the site have a commitment to safety excellence and meet the same requirements of company safety programs.
- 12. To provide recognition to employees who demonstrate outstanding commitment to safety and health

### Employee Commitment and Responsibilities

Employee involvement in all aspects of the safety program are critical to its success. Employees are closest to the work processes, so they must actively communicate with management to facilitate pro-active solutions to safety problems. Our employees are committed to the following responsibilities:

- 1. To immediately stop work in any instance where they feel safety or health is in jeopardy.
- 2. To follow all company safety and health policies and procedures.



Employee safety and health is our top priority.

- 3. To complete all necessary training before performing work.
- 4. To use all required personal protective equipment.
- 5. To inform management of all safety and health concerns.
- 6. To provide input and feedback to all company safety and health policies.

### Company Profile

<b>Company Name</b>	Windsor Co	Windsor Companies		
Owner or President	Terry Child	Terry Childers		
Address	1175 Highv	1175 Highway 36 East, St. Paul, MN 55109		
Main Phone	651 482 020	651 482 0205		
Website	www.winds	www.windsorcompanies.com		
Description of Company Products or Services				
Landscape Design, Construction, Installation & Maintenance				
# of Employees	40	Year Founded	1972	

### Company Safety and Health Program Administrator

Company management retains full responsibility for the safety and health of all employees. The safety and health program administrator is responsible for the creation, execution, supervision, and revision of the company safety program. Individual program responsibilities, such as fall protection or hazard analysis, may have their own coordinators, but the program administrator is the senior safety and health manager.

Safety and Health Program Administrator		
Name	Steven Oelrich	
Job Title	Safety Compliance Liaison	
Phone Number	651-482-0205	
Email Address	steveo@windsomcompanies.com	

### Analysis of Workplace Hazards

The company has performed a baseline hazard survey in all of its work areas. This was accomplished using a job hazard analysis process and outside consultants as necessary. All hazards found in these surveys are either eliminated or controlled. When dealing with workplace hazards, the company's hazard management priority is as follows:

- 1. Engineer out the hazard.
- 2. Change the work process to eliminate the hazard.
- 3. If the hazard cannot be eliminated through engineering or work controls, provide employees with proper personal protective equipment.



Work processes and hazards are both constantly changing. To ensure employee protection, new hazard analysis will be

performed as work processes, equipment, and environments change. Employees will participate in these hazard assessments, which will be reviewed by management. Work will not be allowed to continue until these hazards are properly dealt with.

Hazard analysis will also occur on a regular basis, in accordance with the company job hazard analysis program.

### Company Hazard Profile

The company has performed hazard analysis for each major type of work site. Each site will have their own detailed hazard analysis available for review. This is a basic summary, so employees, visitors and contractors will have an understanding of the work hazards of this organization.

Site Type		
Major Job Tasks	Major Hazards	Required Protective Measures

Site Type		
Major Job Tasks	Major Hazards	Required Protective Measures

Site Type		
Major Job Tasks	Major Hazards	Required Protective Measures

### Focus Four Hazards

The company places special emphasis on the management of the "focus four" hazards. These are the hazards that most often result in death or serious injury on the worksite. These hazards are:

- 1. Falls from heights or into hazardous equipment.
- 2. Being struck by hazards such as falling objects or vehicles.
- 3. Being caught in or between hazardous equipment. This includes cave-ins, unguarded machinery, and equipment.
- 4. Electrical hazards, such as overhead power lines, power tools and cords, outlets, and temporary wiring.

### **Basic Safe Work Practices for Construction**

1. Horseplay and roughhousing is not permitted.

- 2. Do not operate equipment or vehicles unless you are specifically trained and authorized to do so.
- 3. Always store materials in a safe manner. Tie down or support piles if necessary to prevent falling, rolling, or shifting.
- 4. Shavings, dust scraps, oil or grease should not be allowed to accumulate. Good housekeeping is a part of the job.
- 5. Trash piles must be removed as soon as possible. Trash is a safety and fire hazard.
- 6. Remove or bend over the nails in lumber that has been used or removed from a structure.
- 7. Immediately remove all loose materials from stairs, walkways, ramps, platforms, etc.
- 8. Do not block aisles, traffic lanes, fire exits, gangways, or stairs.
- 9. Stay clear of the swing areas of cranes and vehicles.
- 10. Do not work or walk in designated vehicle travel areas.
- 11. Avoid shortcuts use ramps, stairs, walkways, ladders, etc.
- 12. Standard guardrails must be erected around all floor openings and excavations must be barricaded. Contact your supervisor for the correct specifications.
- 13. Do not remove, deface or destroy any warning, danger sign, or barricade, or interfere with any form of protective device or practice provided for your use or that is being used by other workers.
- 14. Get help with heavy or bulky materials to avoid injury to yourself or damage to material.
- 15. Keep all tools away from the edges of scaffolding, platforms, shaft openings, etc.
- 16. Do not use tools with split, broken, or loose handles, or burred or mushroomed heads.
- 17. Keep cutting tools sharp and carry all tools in a container.
- 18. Know the correct use of hand and power tools. Use the right tool for the job.
- 19. Know the location and use of fire extinguishing equipment and the procedure for sounding a fire alarm.
- 20. Flammable liquids shall be used only in small amounts at the job location and in approved safety cans.
- 21. Proper guards or shields must be installed on all power tools before use. Do not use any tools without the guards in their proper working condition. No "homemade" handles or extensions (cheaters) will be used!
- 22. All electrical power tools (unless double insulated), extension cords, and equipment must be properly grounded.
- 23. All electrical power tools and extension cords must be properly insulated. Damaged cords must be replaced.
- 24. Do not operate any power tool or equipment unless you are trained in its operation and authorized by your firm to do so.
- 25. All electrical power equipment and tools must be grounded or double insulated.

### Reporting Safety Concerns

Safety hazards must be reported immediately. Employees must report hazards or concerns to their supervisor or safety representative. This report may be written or verbal but is the responsibility of the supervisor or safety representative to ensure the concerns are recorded. The report will be entered into a safety log, where it will be tracked until the safety concern has been corrected. Serious safety concerns that immediately affect employees must be dealt with quickly. Work must be stopped until the problem is rectified.

The company also allows for employees to anonymously report their safety concerns. Any employee can submit an anonymous concern by dropping a note in the safety suggestion box that is located in the employee break room. The company has a strict no-retaliation policy. Suggestions are valuable for the improvement of safety, and employees can make suggestions without fear of reprisal or complaint.

Safety Concern Submission Methods			
#	Method		
1	Report concern to your immediate supervisor.		
2	Submit an anonymous report to the safety suggestions box located at:		
3	Email the EHS coordinator at:		
4	Contact the company president at:		

### Safety Time Outs

Any employee, no matter how junior, can stop all work by simply calling a "safety time out." When a safety time out is called, all work must stop until a supervisor addresses the concern and verifies that the problem has been corrected. Employees will not hesitate to call safety time outs when they are necessary.

### Safety Incident Investigation

Any near miss, first aid incident, or accident is investigated by the trained team designated by management. All investigations have as a goal the identification of the root cause of the accident, rather than assigning blame. All accident reports are posted in a public space and are open to comment by any employee. The accident investigation team assigns responsibility to appropriate employees for correcting any hazards found and for assigning a date by which the correction must be completed. The specific procedure for conducting accident investigations are listed in the company accident investigation policy.

### **Annual Incident Review**

As part of the annual safety and health program evaluation, management and selected employees will review all near misses, first aid incidents, and entries on the OSHA 300 Log, as well as employee reports of hazards, to determine if any pattern exists that can be addressed. The results of this analysis are considered in setting the goal, objectives, and action plans for the next year.

### Maintenance Program

Properly functioning equipment is a critical component of the company safety plan. Management uses a scheduled maintenance plan and ensures that the worksite and all machinery is cared for properly so that the environment remains safe and healthy. If maintenance needs exceed the capability of the worksite employees, contract employees are hired to do the work and are screened and supervised to ensure they work according to the site's safety and health procedures.

### Discipline Policy

All employees, including all levels of management, are held accountable for obeying company safety and health rules. The following four step disciplinary policy will be applied to everyone by their supervisor.

- Verbal Warning The supervisor will provide a verbal warning to the employee for failing to adhere to a safety policy.
- 2. **Written Reprimand** A reprimand will be written by the supervisor and discussed and signed by the employee. The reprimand will be placed in the employee file.
- 3. **Suspension** The employee will be suspended without pay for an amount of time determined by management.
- 4. **Dismissal** The employee's employment will be terminated.

Employee discipline will typically occur in the order listed above. However, depending on the severity of the infraction, management may decide to skip steps in the process. Any willful violation of policy that places the safety of any employee at risk may result in immediate dismal. Visitors, including contractors who violate safety and health rules and procedures, will be asked to leave the site immediately.



### Work Site Safety and Health Plan

Before starting a job at a new worksite, the company will designate a competent person to develop a work site specific job safety plan. The job site safety plan works in conjunction with this safety plan and safety regulations. The competent person will inspect the job site for the required safety elements. If they are not provided already, the company will provide them prior to the start of work.

### Job Site Safety Plan

The job site safety plan will include:

- 1. The name of the competent person in charge of safety.
- 2. The contact information for the company and the controlling contractor.
- 3. A list of employees authorized to perform work on the job site.
- 4. A list of site specific standing safety orders.
- 5. The daily briefing procedure.
- 6. The job site work classifications.
- 7. The location of first aid kits.
- 8. Any 3<sup>rd</sup> party safety programs or policies the company will comply with.
- 9. The contact number for emergency medical services.
- 10. The required training for employees.
- 11. The required personal protective equipment.
- 12. The required power tools and equipment for the job.
- 13. A special qualifications matrix that lists the requirements for competent persons, qualified persons, and registered professional engineers.
- 14. A review of the Focus Four hazards and special attention paid to them.
- 15. A schedule for regular site safety inspections.
- 16. Any temporary traffic control and internal traffic control plans to be followed.
- 17. Placement of fire extinguishers and fire suppression equipment.
- 18. A list of emergency action plans for the site.
- 19. A list of the work evolutions that require special permits.
- 20. A list of the flammable material storage locations.
- 21. A list of the hazardous material storage locations.
- 22. The authorized smoking area.

### **Work Site Inspections**

Construction sites contain a constantly changing set of hazards. At each work site, a competent person shall be designated to conduct regular inspections to ensure the safety and health of company employees. These inspections may include, but are not limited to:

- 1. Verification of completion of required training.
- 2. Checks to ensure required PPE is being used properly.

- 3. Inspections on employee protective systems, such as shoring and equipment guarding.
- 4. Monitoring for proper vehicle use.
- 5. The condition of scaffolding.
- 6. Proper storage of flammable materials.
- 7. Identification and marking of confined spaces.
- 8. The proper use of work permit systems.
- 9. Proper control of falling object hazards.

These inspections will be listed in the site safety plan.

### Basic Electrical Safety and Lockout Tagout

All electrical work performed on site will comply with relevant codes and OSHA regulations. Employees are not authorized to work on or near live exposed electrical equipment unless they are qualified electrical workers, using a hot work permit system. All equipment that contains a hazardous energy source will be locked out when necessary, in accordance with the site energy control plan.

### **Emergency Action Plans**

The company will prepare an emergency action plan for all potential emergencies and communicate the requirements of these plans to employees. The company works with appropriate outside agencies, such as the fire department, the police department, and the hospital to write emergency plans for all potential emergencies, including:

- 1. Fire.
- 2. Explosions.
- 3. Severe Weather.
- 4. Loss of Power.
- 5. Bomb Threats.
- 6. Chemical Spills.
- 7. Other Potential Emergencies

Each type of emergency will be practiced at least once a year. A total site evacuation drill focusing on one emergency type, with all

FIRE ALARM
PULL DOWN

Emergency Action Plans have been created for potential emergencies.

work shut down, and coordinated with the appropriate agency, is conducted once a year. Each drill, whether simulated or actual evacuation, is evaluated by the drill planning committee, constituted each year with two managers or supervisors and two employee volunteers. This committee's written report is posted in the lunch room, and supervisors ensure that all employees know the results. When necessary, the emergency procedures are revised as a result of the evaluation report.

### **Emergency Exit Routes**

Management will ensure that the facility has sufficient exit routes for both normal use and emergency evacuation. Exit routes will be clearly marked, and they will conform to OSHA and NFPA requirements. The company will periodically audit the exit routes to assure conformance. Emergency exit routes on site will be covered in the daily briefing.

### First Aid and Medical Emergencies

The company evaluates the need for first aid trained employees and ensures that there are enough to meet the needs of the facility. In the absence of a close medical facility, the company will ensure that a certified, first-aid trained employee is on site.

The company will ensure that first aid kits are stocked and readily accessible in the marked locations throughout the facility. Appropriate personal protective equipment (PPE) is provided for the different types of accidents possible at the site. The list below identifies the location of first aid kits in the company shop or office. The site-specific safety plans will list locations of first aid kits for that site.

First Aid Kits				
Work Area	Storage Location	Kit Type		
Shop	Storage Locker	☐ First Aid Kit ☐ Bodily Fluid Kit ☐ AED		
Office	East Entry near bathroom	☐ First Aid Kit ☐ Bodily Fluid Kit ☐ AED		
		☐ First Aid Kit ☐ Bodily Fluid Kit ☐ AED		
		☐ First Aid Kit ☐ Bodily Fluid Kit ☐ AED		
		☐ First Aid Kit☐ Bodily Fluid Kit☐ AED		

In the event of a medical emergency that requires more than first aid, employees should immediately call 911 and report the emergency to a supervisor. If 911 is not available, the appropriate contact number will be listed on the site safety plan.

### Medical Surveillance

For work hazards that require medical surveillance, such as hearing and respiratory protection, the company will provide monitoring. Medical health professionals, working on contract for the site, examine health surveillance data to discern changes in overall employee health screening results to discern any trends that need to be addressed. Health professionals, appropriately trained and knowledgeable about site hazards, immediately treat employees for occupational health problems and follow each case until the individual can return full-time to all aspects of his assigned job.

These professionals ensure that employee medical records are kept confidential so that diagnosis and treatment are not divulged, but management does have information about the employee under treatment as to:

- 1. Ability to perform job tasks.
- 2. Job limitations or accommodations needed.
- 3. Length of time the limitations must be implemented.

Management ensures that supervisors honor these restrictions. This health care is provided free of charge for all employees. The total plan is reviewed annually to assess its effectiveness.

### Motor Vehicle Operation

Some motor vehicles will be used on site to perform construction operations. The vehicles will only be operated by authorized employees. The motor vehicles will comply with the following requirements:

- 1. All vehicles will have a service brake system, an emergency brake system, and a parking brake.
- 2. When visibility requires additional light, each vehicle will have two headlights and two tail lights.
- 3. Brake lights must work.
- 4. Vehicle must have a working horn.
- 5. Motor vehicles with an obstructed rear view may not be used unless there is a backup alarm that is louder than ambient, or the vehicle backs up only when an observer says it is safe to do so.
- 6. Vehicles must have windshields and power wipers. Vehicles in areas with fog or frost must have defogging or defrosting devices.
- 7. Vehicles that carry loads placed by cranes or other equipment must have a cab shield or canopy strong enough to protect the driver from shifting or falling materials.
- 8. If tools or materials are transported in the same compartment as employees, they must be secured to prevent movement.
- 9. Seats must be secured, and there must be a seat for every employee in the vehicle.

- 10. Seatbelts must be installed and used.
- 11. Trucks with dump bodies must be equipped with permanently installed supports that will prevent accidental lowering during inspection or maintenance.
- 12. Operating levers that control hoisting or dumping must have a latch or other device that prevents accidental operation.
- 13. Operating devices must be placed where the operator is clear of a dumping or hoisting operation.
- 14. Vehicles should have fenders or mud flaps.

### **Daily Inspection**

At the beginning of each work shift, the vehicles must be inspected to ensure they are in safe working condition and free of damage. The inspection will include:

- 1. Brakes.
- 2. Trailer brake connections.
- 3. Parking system.
- 4. Emergency stopping system.
- 5. Tires.
- 6. Horn.
- 7. Steering.
- 8. Coupling devices.
- 9. Seat belts.
- 10. Operating controls.
- 11. Safety devices.

Defects must be corrected before the vehicle can be used.

### **Authorized Drivers**

Vehicle operators must be old enough and have the proper license to operate. Work site supervisors will verify their employees meet the appropriate local requirements before allowing them to operate a vehicle.

### Traffic Control and Highway Work Zones

When construction work causes the normal function of roadways and pedestrians traffic to be suspended, a Temporary Traffic Control (TTC) plan will be developed and used. TTC plans will be developed during the planning phase of the project. The TTC plans are the responsibility of the authority of a public body or official that has jurisdiction for guiding road users. The controlling contractor will work with the applicable authorities to develop the plan.

The TTC will comply with the following basic principles:

- 1. It will provide for the safety of motorists, bicyclist, pedestrians, emergency officials, and equipment.
- 2. Road user movement will be inhibited as little as practical.

- 3. Motorists, bicyclists, and pedestrians should be guided in a clear and positive manner as they approach the site.
- 4. Routine inspections of the plan elements will occur.
- 5. Roadside safety must be a priority.
- 6. Each worker whose actions affect the TTC must be trained on the plan and safe work practices to adhere with the plan.
- 7. The plan must provide good public relations with the community regarding traffic changes.

### Worker Safety in Traffic Control Zones

Roadside work is hazardous, and employees must be protected. The following are key elements for worker safety when developing a TTC plan.

- 1. All employees must be trained how to work next to motor vehicle traffic while minimizing their risk.
- 2. Temporary traffic barriers should be placed along the workspace to protect employees.
- 3. The speed of vehicle traffic must be reduced to an appropriate level.
- 4. Activity areas should be planned that minimize the backing-up maneuvers of construction vehicles.
- 5. A trained, designated employee should conduct a hazard assessment of the work site and job classifications required in the activity area. This safety professional should determine the appropriate engineering, administrative, and personal protection measures to be implemented.

### Safety Training Requirements

Proper training is the key to employee safety. Management believes that employee involvement in the site's safety and health program can only be successful when everyone on the site receives sufficient training to understand what their safety and health responsibilities and opportunities are and how to fulfill them. All training time will be paid according to normal company work hour's policy.

### Company Safety Orientation

All new employees receive a safety and health orientation before they begin work. This training will include a review of all the company safety policies. New employees will not be permitted to work without direct oversight from an experienced employee until they have completed all required safety training and the area supervisor has deemed them competent to perform work on their own.

The safety orientation program will include:

1. The company safety mission statement.

- 2. The process of identifying, eliminating, and managing hazards.
- 3. A basic understanding of safety regulations.
- 4. The purpose and proper use of safety time outs.
- 5. The prevention of slips, trips, and falls in the workplace.
- 6. The labeling and material safety data sheet requirements for chemicals in the workplace.
- 7. Common personal protective equipment requirements.
- 8. The company policy on roughhousing and horseplay.
- 9. The safe use of mobile phones.
- 10. The company smoking policy.
- 11. A basic understanding of the purpose of lockout tag out.
- 12. Location of first aid kits
- 13. The importance of good housekeeping.
- 14. Basic fire prevention techniques.
- 15. Emergency actions in the event of a fire.
- 16. How to report safety concerns.
- 17. How to report injuries.
- 18. The company disciplinary policy for safety violations.

Additional safety requirements as necessary.

### Job Specific Safety Training

In addition to the company orientation safety training, employees will be required to complete training on the various topics that are required as part of their work assignment. Their immediate supervisor is responsible for assigning this training as described in the training matrix. The employee will not be permitted to work until the requisite training is completed.

### Periodic Training

The company will provide training events, at least monthly, that cover the relevant safety topics of the workplace. The training plan will be scheduled so that employees meet all refresher requirements for their safety training. Management will solicit suggestions from employees for timely and relevant training events.

### **Designating Trainers**

Management will designate trainers for the company training program. All trainers must be:

- 1. Designated by management.
- 2. Skilled at communicating important safety concepts to employees.
- 3. Experts in their area of work.
- 4. Able to recognize the hazards of the workplace and take steps to mitigate those hazards.
- 5. Sufficiently qualified to train employees as determined by the relevant OSHA standards.

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### Company Safety Policy Review

The company safety policy will be reviewed at least annually cooperatively by both management and employee representatives. The reviewers will consider:

- 1. The rate of injury and illnesses in the workplace.
- 2. The effectiveness of written safety policies.
- 3. The effectiveness of company safety training.
- 4. The overall company safety culture.

Once the review has been completed, the group will make recommendations for improvements and assist management in setting the next year's safety and health goals. Recommendations will be presented to management and made available to employees for review.

### Purpose

The purpose of the Injury and Illness Policy is to record all work-related injuries and illnesses. The company is committed to providing a safe work environment for all employees. Any identified causes of these injuries will be immediately corrected. All company employees and any outside workers that are supervised by company employees are covered by this program. The OSHA recordkeeping program is for data recording only and is separate from the company's incident investigation and correction program.

### **Program Coordinator**

The Safety Compliance Liaison is in charge of the company injury and illness recordkeeping program. The responsibilities of the coordinator are as follows:

- 1. Maintain the OSHA 300 Log.
- 2. Review and file all OSHA 301 Incident Report Forms.
- 3. Complete the OSHA 300A Annual Summary every January.
- 4. Assist managers with determining if injuries are work related.
- 5. Provide training to managers and employees on the company injury and illness reporting policies.

### Determination of Work-Relatedness

An injury or illness will be considered work related if an event or exposure in the work environment either caused or contributed to the resulting condition or significantly aggravated a preexisting injury or illness. Work-Relatedness is presumed for all events or exposures that occur in the work environment, unless an exception specifically applies.

### Working from Home

Injuries or illnesses that occur while an employee is working at home, including work in the home office, will be considered work-related if it occurs while the employee is working for pay, and the incident is directly related to the performance of that work. Injuries or illnesses that are caused by the general home environment and are not related to work will not be considered work-related.

### **Travelling Employees**

An injury or illness that occurs while the employee is in work-related travel status will be considered work-related. This includes injuries that may occur in the airport or other travel

location. Injuries or illnesses that occur in the hotel room or temporary residence will not be considered work related. If the employee takes personal side trips, any injury or illness that occurs there will not be considered work related.

### Types of Injuries and Illnesses

Any injury or illness must meet one of the following criteria in order for it to be considered recordable.

### 1. General Criteria

- a. Death
- b. Days away from work (excluding the day of the injury)
- c. Restricted work or job transfer
- d. Medical treatment beyond first aid
- e. Loss of consciousness
- f. A significant injury or illness diagnosed by a licensed health care professional.

### 2. Needlesticks and Sharp Injuries

a. All work-related needlesticks will be recorded. Cuts from sharp objects that are contaminated with blood or other potentially infectious material must be recorded.

### 3. Medical Removal

a. If an employee is removed from the workplace due to a medical surveillance requirement (such as lead exposure monitoring), the case will be recorded.

### 4. Occupational Hearing Loss

a. Any employee who experiences a standard threshold shift and demonstrates a hearing level 25 decibel above audiometric zero in the same ear will be recorded as a recordable injury. If this occurs, the case will be entered in the OSHA 300 Log and referred to the company's Occupational Noise coordinator.

### 5. Tuberculosis

a. If any employee has been exposed in the workplace to someone with an active case of tuberculosis, and that person develops the disease, it will be recorded. If the cause of the infection is determined to originate from outside the workplace, it is not a recordable event.

Procedure for Submitting Work-Related Injuries and Illnesses

### **Supervisor Actions**

- 1. Any employee who has a work-related injury or illness must immediately report it to his or her supervisor. The supervisor will consult the injury and illness decision flowchart to determine if this is a recordable event.
- 2. If the case is determined to be recordable, the supervisor will complete an OSHA 301 Injury and Illness Report and submit it to the OSHA Recordkeeping Coordinator.

3. The supervisor will also complete an incident report form and submit it to management for further investigation and root cause analysis.

### **Recordkeeping Coordinator Actions**

- 1. Upon receiving an OSHA 301 Form, the Coordinator will review it for accuracy.
- 2. Once verified, the Coordinator will enter the information into the OSHA 300 Log.
- 3. For cases with days away from work, restricted or transferred, on the day after the injury or illness occurs, all days will be counted, including weekends and holidays. This count will stop at 180 days, or if the employee leaves the company for a reason unrelated to the injury or illness.
- 4. The OSHA 301 Injury and Illness Forms will be filed with the OSHA 300 Log.
- The Coordinator will contact the Safety Compliance Liaison to ensure that an in-depth investigation of the event is occurring, and that the cause will be identified and eliminated.

### **Privacy Cases**

The following categories are considered to be "Privacy Cases." For these cases, the employee name will not be entered into the OSHA 300 Log. Instead, the Coordinator will enter "Privacy Case" for the name.

- 1. An injury or illness to an intimate body part or the reproductive system.
- 2. An injury or illness resulting from a sexual assault.
- 3. Mental illnesses.
- 4. HIV infection, hepatitis, or tuberculosis.
- 5. Needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material.
- 6. Other illnesses, if the employee voluntarily requests that his or her name not be entered on the log.

### **Annual Summary**

Every year in January, the Coordinator will review the OSHA 300 Log and verify that all entries are complete, accurate, and up to date. Any discrepancies will be corrected. The Coordinator will complete the OSHA 300A Summary of Work Related Injuries and Illnesses.

### **Summary Certification**

The annual summary will be certified by Terry Childers, President. The certifier will sign the OSHA 300A form declaring it the official document.

### **Annual Summary Posting**

Once certified, the annual summary will be posted for employee review in the shop. This information will be posted from February 1<sup>st</sup> to April 30<sup>th</sup> of each year.

### **Employee Review of Records**

### OSHA 300 Log

The company will allow any employee or authorized representative to review the OSHA 300 Log. This information will be provided by the end of the next business day after it is requested.

### OSHA 301 Injury and Incident Report Forms

The company will allow any employee or authorized representative to review OSHA 301 Forms that describe an injury or illness that pertain to that employee. This information will be provided by the end of the next business day after it is requested.

### Record Retention and Updating

The OSHA 300 Log and OSHA 301 Injury and Illness Report Forms will be retained for at least five years following the end of the calendar year the records cover. The Coordinator will keep the OSHA 300 Log current to reflect any changes in classification of injuries or illnesses.

### Reporting Fatalities or Catastrophes

Any fatality will be reported within eight hours to OSHA. Any hospitalization, amputation, or loss of an eye must be reported within 24 hours. The Coordinator will contact OSHA by calling 1-800-321-OSHA.

### **Employee Training**

All employees will be trained on how to identify workplace injuries and illnesses, and the proper process for reporting them.

### **Job Hazard Analysis**

The identification, elimination or management of hazards in the workplace is the primary function of the company safety program. The company is committed to providing a safe working environment for all employees and will perform job hazard analysis on every common work task. Once the safety hazards have been identified, the company will take steps to eliminate or manage the hazard.

### Program Responsibilities

### Management

Management has the following responsibilities:

- 1. To establish guidelines for job hazard analysis at the company.
- 2. To ensure that employees are provided with the proper tools and resources to perform job hazard analysis.
- 3. To identify company employees who have the knowledge and competence to conduct job hazard analysis.
- 4. To provide training to employees who have been selected as part of the company job hazard analysis program.
- 5. To quickly respond and correct hazards that are identified in a job hazard analysis.
- 6. To ensure the company is operating in accordance with this policy by performing periodic reviews and audits.
- 7. To review this safety policy for effectiveness periodically and when program deficiencies are discovered.

### Job Hazard Analysis Coordinator

The company Job Hazard Analysis Coordinator is the Safety Compliance Liaison. The Job Hazard Analysis Coordinator has the following responsibilities:

- 1. To administrator the company job hazard analysis program.
- 2. To provide or coordinate training for the job hazard analysis program.
- 3. To perform periodic audits to ensure the job hazard analysis program is being followed.
- 4. To manage the retention of documents for the job hazard analysis program.
- 5. To facilitate communication between employees and management on the identification and management of hazards.

### **Supervisors**

Supervisors have the following responsibilities:

- 1. To perform and supervise job hazard analysis in accordance with this policy.
- 2. To provide communication between employees and management on safety issues.
- 3. To complete job hazard analysis training if assigned by the company.

### **Employees**

Employees have the following responsibilities:

- 1. To report all safety incidents and near misses immediately to a supervisor.
- 2. To perform or cooperate with job hazard analysis in accordance with this policy.
- 3. To complete job hazard analysis training if assigned by the company.

### **Hazard Management Priorities**

### Elimination of the Hazard

Eliminating the hazard is the first priority for dealing with identified hazards. Eliminating the hazard eliminates the risk to employees or equipment. The hazard can be eliminated by:

- 1. Redesigning equipment, tools or workstations.
- 2. Replace equipment, tools or workstations.
- 3. Usage of guards and other protective covers.
- 4. Other methods identified by the company that can eliminate the hazard.

### Management of the Hazard

If the hazard cannot be eliminated by reasonable means, then the company will establish managerial and process controls that will manage the risk. This process may include:

- 1. Changing work processes.
- 2. Rotating personnel assignments.
- 3. Change work procedures.
- 4. Changing design requirements.
- 5. Other methods identified by the company.

### Personal Protective Equipment

If the hazard cannot be eliminated through engineering or management controls, then the workers must be provided with personal protective equipment that provides them complete protection from the hazard. Employees will be provided the protective equipment at no cost and will be trained on their proper use and maintenance.

### **Uncontrolled Hazards**

Hazards must be safely controlled through engineering controls, management controls, or the use of personal protective equipment. If these methods are not sufficient to protect employees from a hazard of a particular job task, then that task will not be allowed. All work involving that task will stop, until a means to safely manage the hazard is determined.

### Designating Job Hazard Analysis Duties

The company will select employees to perform job hazard analysis based on the following requirements:

- 1. The employee been trained to conduct job hazard analysis.
- 2. Has the requisite technical knowledge for the type of work process being analyzed. (For example, electrical manufacturing processes should be investigated by someone who has a strong technical knowledge of electrical systems.)
- 3. Is a senior employee or supervisor.
- 4. Has the ability to communicate details clearly and concisely.
- 5. Is familiar with the requirements of the company job hazard analysis policy.

### **Training Requirements**

Employees who perform job hazard analysis must have specific training on the job hazard analysis process and the requirements of this program. This training is in addition to all the required safety training that is relevant to the area being observed. The job hazard analysis training must include:

- 1. The purpose of the job hazard analysis.
- 2. Understanding of hazard severity factors.
- 3. The five-step job hazard analysis process.
- 4. A simulated job hazard analysis activity.
- 5. The requirements of this safety program.

### **Training Frequency**

Employees must be trained before conducting their first job hazard analysis and:

- 1. When changes in the company hazard analysis policy are made.
- 2. When an employee demonstrates a lack of understanding of the policy.
- 3. Whenever additional and refresher training is determined necessary.

### Types of Hazards

Employees performing job hazard analysis must identify every potentially hazard to employee safety. The following is a list of commonly identified hazards on our job sites:

- 1. Chemical hazards.
- 2. Explosive hazards.
- 3. Electrical shock hazards.
- 4. Fire hazards.
- 5. Ergonomic hazards.
- 6. Repetitive motion stress.
- 7. Slips, trips and fall hazards.
- 8. Mechanical vibration and failure.
- 9. Occupational noise exposure.
- 10. Vehicle and pedestrian hazards.
- 11. Temperature stress hazards.
- 12. Visibility limitations.

### 13. General office safety hazards.

Assessors should be aware of other hazards that may affect the safety and health of employees.

### Job Hazard Analysis Procedure

### Step 1 - Observe the Job

The work process must be observed under normal working conditions. The person performing the JHAs may not be involved in the job tasks in any way. This person performing the analysis should be familiar with the process but must be a neutral observer. Employees who routinely perform the task observed may be conditioned to ignore safety hazards others may identify. The observer should document the work process with one or more of the following tools:

- 1. Notes.
- 2. Photos.
- 3. Sketches.
- 4. Videos.

### Step 2 - Break the Job into Steps

Each job process must be broken into individual steps. Make sure that each unique operation has its own step. The description of the steps should be clear and concise, so that any worker can understand it.

### Step 3 - Describe the Hazards

The hazards in each step of the work process should be identified and described. The assessor should consider what could go wrong during this process that may expose workers to hazards. The assessor should be mindful of less commonly thought of hazards, such as repetitive motion and ergonomics.

### Step 4 - Identify Control Measures

The assessor should list recommended control measures for dealing with the hazards identified in each step. The control measures must follow the hazard management priority as identified in this program. The control measures must eliminate the hazard or fully protect employees from that hazard. The control measures are recommendations. Management will have the final decision on control measures once the hazard analysis is submitted.

### Step 5 - Review, Submit and Implement

Once the job hazard analysis is completed, it must be submitted to management. The JSAs will be reviewed and logged for future reference. Once reviewed, management will take the appropriate actions. The assessor should follow up on their recommendations to make sure the hazards they have identified were mitigated.

### Job Hazard Analysis Frequency

A job hazard analysis will be completed prior to the start of a new task or process. Work operations that are similar may be covered by the same JHA, but work processes with their own distinct hazards must have their own JHA.

Existing job hazard analyses will be reviewed on a schedule determined by the company. Work areas with high hazard profiles will be evaluated more frequently than work areas with minimal hazards.

Site Type	Work Process	Frequency of Analysis

## Recordkeeping

Once received, the company will keep the most recent job hazard analysis for each work process on file. The company will track each job hazard analysis by number in a log and will make sure that each hazard identified by the analysis is taken care of. Employees may review the company job hazard analysis files at any time.

### **Accident Investigation**

### Purpose

The purpose of this program is to establish guidelines for performing investigations of safety accidents and near misses. The company is committed to providing a safe working environment for all employees and will investigate every incident or near miss to determine its cause. Once the root cause is established, the company will take steps to prevent it from reoccurring. The investigation process detailed in this program is not designed to determine legal liability, compensability, or fraud. Separate investigations must be conducted for those issues.

### Program Responsibilities

### Management

Management has the following responsibilities:

- 1. To establish guidelines for accident investigations at the company.
- 2. To ensure that employees are provided with the proper tools and resources to perform accident investigations.
- 3. To identify company employees who have the knowledge and competence to conduct accident investigations.
- 4. To provide training to employees who have been selected as part of the company accident investigation team.
- 5. To review and respond promptly to the recommendations that result from accident investigations.
- 6. To ensure the company is operating in accordance with this policy by performing periodic reviews and audits.
- 7. To review this safety policy for effectiveness periodically and when program deficiencies are discovered.

### **Supervisors**

Supervisors have the following responsibilities:

- 1. To ensure that all accidents and near misses are reported.
- 2. To perform accident investigations in accordance with this policy.
- 3. To provide communication between employees and management on safety issues.

### **Employees**

Employees have the following responsibilities:

- 1. To report all safety incidents and near misses immediately to a supervisor.
- 2. To cooperate with company accident investigations.

### **Definitions**

### Accident

Any event that causes any of the following:

- 1. Death, or critical condition that may result in death.
- 2. Any injury that requires treatment beyond basic first aid.
- 3. A release or exposure to a toxic or hazardous substance.
- 4. Any structural failure, such as the collapse of a building, bridge, tower or crane.
- 5. An uncontrolled explosion or fire.
- 6. An uncontrolled event that results in damage to property.

### **Near Miss**

An accident, as defined by this program, that was narrowly avoided due to circumstances or timing. All near misses will be investigated as if they were actual accidents.

### Accident Investigation Kit

The company will provide a set of materials for investigating safety accidents. This kit will include at a minimum:

- 1. Company accident investigation forms.
- 2. Pens.
- 3. Notepads.
- 4. Flashlight.
- 5. Tape measure.
- 6. Camera.
- 7. Safety barricade tape.
- 8. Tape or video recorder.
- 9. Work gloves.

### **Designating Accident Investigators**

Company management or the safety committee will designate a person to lead the accident investigation who:

- 1. Has been trained to conduct accident investigations.
- 2. Has the requisite technical knowledge for the type of accident being investigated. (For example, electrical safety accidents should be investigated by someone who has a strong technical knowledge of electrical systems.)
- 3. Is a senior employee or a supervisor.
- 4. Has the ability to communicate details clearly and concisely.
- 5. Was not involved in any way with the accident that occurred.

### **Training Requirements**

Employees who perform accident investigations must have specific training on conducting investigations and the accident investigation policies of the company. The training must include:

- 1. The purpose of safety accident investigation.
- 2. Definitions of accidents and near misses.
- 3. Understanding of the difference between major and minor incidents.
- 4. The required qualifications for investigators.
- 5. The required contents of an accident investigation kit.
- 6. The five-step process for investigating accidents.
- 7. The proper techniques for interviewing witnesses.
- 8. How to make recommendations for corrective action.
- 9. The proper method for recording investigations and submitting them to management.

### **Training Frequency**

Employees must be trained before conducting their first investigation and:

- 1. When changes in the company investigation policy are made.
- 2. When an employee demonstrates a lack of understanding of the policy.
- 3. Whenever additional and refresher training is determined necessary.

### **Accident Investigation Procedure**

- 1. Make sure the area is free of hazards before entering.
- 2. Make sure that employees involved in the accident are in a safe condition and have received any needed emergency services.
- 3. Define the scope of the investigation, when the incident began and ended.
- 4. Select appropriate investigators and assign specific tasks to each.
- 5. Perform a preliminary briefing to the investigating team. Each brief must include:
  - a. A description of the accident.
  - b. A description of normal operating procedures.
  - c. A description of the site layout.
  - d. A list of witnesses.
  - e. An account of events preceding the accident.
- 6. Collect physical evidence, take photos and prepare sketches.
- 7. Interview each victim and witness privately and separately.
- 8. Make the following determinations:
  - a. What was not normal before the accident?
  - b. Where the abnormality occurred.
  - c. When the abnormality was first noted.
  - d. How the abnormality occurred.
  - e. The qualifications of the people involved.
- 9. Make the following determinations:
  - a. Why the accident occurred.
  - b. The likely accident sequence of events.
  - c. Any alternative sequence of events.

- 10. Determine the most likely sequence of events and the probable causes of the incident.
- 11. Conduct a post-investigation briefing with management.
- 12. Prepare a report of the incident and submit it to management and the safety committee.

#### Fire Prevention

# Purpose

The purpose of this Fire Prevention Plan is to eliminate the causes of fire, prevent loss of life and property by fire, and to comply with the Occupational Safety and Health Administration's (OSHA) standard on fire prevention. Fire is a dangerous hazard, and we will take all the precautions necessary to protect our employees.

# **Objectives**

The company is committed to minimizing the threat of fire to employees, visitors, and property. The company will comply with all applicable laws, regulations, codes, and best practices pertaining to fire prevention. The Fire Prevention Plan serves to reduce the risk of fires at the workplace by:

- 1. Identifying materials that are potential fire hazards and their proper handling and storage procedures.
- 2. Distinguishing potential ignition sources and the proper control procedures of those materials.
- 3. Describing fire protection equipment and/or systems used to control fire hazards.
- 4. Identifying persons responsible for maintaining the equipment and systems installed to prevent or control ignition of fires.
- 5. Identifying persons responsible for the control and accumulation of flammable or combustible material.
- 6. Describing good housekeeping procedures necessary to insure the control of accumulated flammable and combustible waste material and residues to avoid a fire emergency.
- 7. Providing training to employees on fire hazards to which they may be exposed.

#### Program Responsibilities

#### Management

Management has the following responsibilities:

- 1. To provide adequate controls and procedures to maintain a workplace with minimal fire risk.
- 2. To ensure that regular fire hazard assessments are performed.
- 3. To select equipment and work processes that minimize the risk of fire.
- 4. To create and authorize a fire prevention plan.
- 5. To designate a company fire prevention coordinator.
- 6. To provide training to employees on fire prevention and how to manage the fire hazards of the workplace.

- 7. To develop an emergency action plan for fire and evacuation.
- 8. To review this program for effectiveness regularly.

#### Fire Prevention Coordinator

The Safety Compliance Liaison is the Fire Prevention Coordinator. The Fire Prevention Coordinator has the following responsibilities:

- 1. To develop and administer the fire prevention training program.
- 2. To maintain all records pertaining to this plan.
- 3. To administrate and supervise the company fire prevention plan.
- 4. To make sure the company is complying with federal, state, and local fire prevention and protection regulations.
- 5. To ensure that fire control equipment and systems are properly maintained.
- 6. To maintain control of the fuel source hazards.
- 7. To conduct fire risk surveys and make recommendations to management and/or the safety committee.
- 8. To provide or coordinate fire prevention training for employees.
- 9. To perform periodic audits and inspections to ensure compliance with this program.

# **Supervisors**

Supervisors have the following responsibilities:

- 1. To ensure employees are working within the requirements of this program.
- 2. To provide proper fire prevention training to relevant employees.
- 3. To report any new fire hazards to the Fire Prevention Coordinator.
- 4. To report any safety incidents or concerns to management.

#### **Employees**

Employees have the following responsibilities:

- 1. To complete all required training before working without supervision.
- 2. To conduct operations safely to limit the risk of fire.
- 3. To report potential fire hazards to their supervisors.
- 4. To follow fire emergency procedures.
- 5. To report any safety incidents or concerns to a supervisor.

# **Basic Fire Protection Requirements**

#### The company will:

- 1. Develop a fire protection program to be followed during all phases of construction.
- 2. Maintain access to firefighting equipment at all times.
- 3. Provide fire extinguishers and other firefighting and suppression equipment appropriate for the project hazards.
- 4. Make sure firefighting equipment is conspicuously located.

- 5. Periodically inspect firefighting equipment and immediately replace damaged equipment.
- 6. If warranted by the project, provide a trained and equipped firefighting organization.

# Housekeeping and Safe Work Practices

Good housekeeping and safe work practices are important for fire prevention. To limit the risk of fires, employees will take the following precautions:

- 1. Minimize the storage of combustible materials.
- 2. Make sure that doors, hallways, stairs, and other exit routes are kept free of obstructions.
- 3. Dispose of combustible waste in covered, airtight, metal containers.
- 4. Use and store flammable materials in well-ventilated areas away from ignition sources.
- 5. Use only nonflammable cleaning products.
- 6. Keep incompatible (i.e., chemically reactive) substances away from each other.
- 7. Perform "hot work" (i.e., welding or working with an open flame or other ignition sources) in controlled and well-ventilated areas.
- 8. Keep equipment in good working order (i.e., inspect electrical wiring and appliances) regularly and keep motors and machine tools free of dust and grease.
- 9. Ensure that heating units are safeguarded.
- 10. Report all gas leaks immediately. The program coordinator shall ensure that all gas leaks are repaired immediately upon notification.
- 11. Repair and clean up flammable liquid leaks immediately.
- 12. Keep work areas free of dust, lint, sawdust, scraps, and similar material.
- 13. Do not rely on extension cords if wiring improvements are needed and take care not to overload circuits with multiple pieces of equipment.
- 14. Ensure that required hot work permits are obtained.
- 15. Turn off electrical equipment when not in use.

#### **Electrical Fire Hazards**

Electrical system failures and the misuse of electrical equipment are leading causes of workplace fires. Fires can result from loose ground connections, wiring with frayed insulation, or overloaded fuses, circuits, motors, or outlets. To prevent electrical fires, employees shall:

- 1. Make sure that worn wires are replaced.
- 2. Use only appropriately rated fuses.
- 3. Never use extension cords as substitutes for wiring improvements.
- 4. Use only approved extension cords [i.e., those with the Underwriters Laboratory (UL) or Factory Mutual (FM) label].
- 5. Check wiring in hazardous locations where the risk of fire is especially high.

6. Check electrical equipment to ensure that it is either properly grounded or double insulated.

# Flammable and Combustible Materials

The program coordinator shall regularly evaluate the presence of combustible materials in the workplace. Certain types of substances can ignite at relatively low temperatures or pose a risk of catastrophic explosion if ignited. Such substances obviously require special care and handling.

#### Class A Fires

These include common combustible materials (wood, paper, cloth, rubber, and plastics) that can act as fuel and are found in non-specialized areas such as offices. To handle Class A combustibles safely:

- 1. Dispose of waste daily.
- 2. Keep trash in metal-lined receptacles with tight-fitting covers (metal wastebaskets that are emptied every day do not need to be covered).
- 3. Keep work areas clean and free of fuel paths that could allow a fire to spread.
- 4. Keep combustibles away from accidental ignition sources, such as hot plates, soldering irons, or other heat- or spark-producing devices.
- 5. Store paper stock in metal cabinets.
- 6. Store rags in metal bins with self-closing lids.
- 7. Do not order excessive amounts of combustibles.
- 8. Make frequent inspections to anticipate fires before they start.

Water, multi-purpose dry chemical (ABC), and halon 1211 are approved fire extinguishing agents for Class A combustibles.

#### Class B Fires

These include flammable and combustible liquids (oils, greases, tars, oil-based paints, and lacquers), flammable gases, and flammable aerosols. To handle Class B combustibles safely:

- 1. Use only approved pumps, taking suction from the top, to dispense liquids from tanks, drums, barrels, or similar containers (or use approved self-closing valves or faucets).
- 2. Do not dispense Class B flammable liquids into containers unless the nozzle and container are electrically interconnected by contact or by a bonding wire. Either the tank or container must be grounded.
- 3. Store, handle, and use Class B combustibles only in approved locations where vapors are prevented from reaching ignition sources such as heating or electric equipment, open flames, or mechanical or electric sparks.
- 4. Do not use a flammable liquid as a cleaning agent inside a building (the only exception is in a closed machine approved for cleaning with flammable liquids).
- 5. Do not use, handle, or store Class B combustibles near exits, stairs, or any other areas normally used as exits.

- 6. Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles.
- 7. Do not generate heat, allow an open flame, or smoke near Class B combustibles.
- 8. Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.

Water should not be used to extinguish Class B fires caused by flammable liquids. Water can cause the burning liquid to spread, making the fire worse. To extinguish a fire caused by flammable liquids, exclude the air around the burning liquid. The following fire-extinguishing agents are approved for Class B combustibles: carbon dioxide, and multi-purpose dry chemical (ABC).

#### Class C Fires

Class C Fires involve or occur near live electrical equipment. The source of the fire is usually the electrical power.

- 1. Always use lockout tagout procedures when performing work on electrical equipment.
- 2. If live work is required, it must be done by a qualified electrical worker.
- 3. A work permit should be obtained before live electrical work is performed.
- 4. Before live work is performed, the area must be isolated from conductive materials.
- 5. All ignition sources must be removed from an area while live work is conducted.
- 6. The quickest way to put out a Class C fire is usually to de-energize the equipment.
- 7. A non-conducting firefighting method must be used for Class C fires. Do not use water!
- 8. CO2 extinguishers can be dangerous if the horn of the extinguisher comes close to the electrical source. Chemical extinguishers are preferred.

#### Class D Fires

Class D fires involve combustible metals and are extremely difficult to extinguish. A special firefighting team must be summoned in the event of a Class D fire.

- 1. Safety data sheets must be available for all combustible metals.
- 2. Do not perform hot work in any areas with combustible metals.
- 3. Combustible metals must be marked with fire hazard warnings.
- 4. Combustible metals must be stored in designated areas.

#### **Smoking**

Smoking is prohibited in all buildings and work sites. Only designated areas will be authorized for smoking.

# Fire Emergency Action Plan

Each work area and work site will have an established emergency action plan for fire. Employees will be trained on this emergency action plan as part of this fire prevention training program. This emergency action plan will include:

- 1. The alarm sound or method.
- 2. Method of sounding the alarm.
- 3. A list of any required critical operations.
- 4. Any rescue or medical duties.
- 5. Method and route of evacuation.
- 6. Assembly area and method for determining if employees are missing.
- 7. The method for receiving the all clear and returning to work.

#### **Fall Protection**

The objective of the company fall protection program is to make sure that employees are protected from the hazards of working at heights. This program outlines the requirements for assessment and mitigation of fall hazards. This program operates in conjunction with fall protection regulations. It does not replace or supersede rules on the use of fall protection. The company will always comply with the regulations, but at times may impose stricter rules in order to improve employee safety.

# **Program Responsibilities**

#### Management

Management has the following responsibilities:

- 1. To provide a workplace that minimizes fall protection hazards.
- 2. To provide ANSI complaint fall protection systems.
- 3. To develop a company fall protection program that complies with regulations.
- 4. To designate a company fall protection coordinator.
- 5. To identify employees who are affected by this policy and ensure that they receive the required training.
- 6. To provide required protective equipment at no cost to employees.
- 7. To provide technical support to employees for fall protection issues.
- 8. To ensure the company is operating in accordance with this policy by performing periodic reviews and audits.
- 9. To review this safety policy for effectiveness periodically and when deficiencies are discovered.

#### Fall Protection Coordinator

The company Fall Protection Coordinator is the Safety Compliance Liaison. The fall protection coordinator has the following responsibilities:

- 1. To coordinate or perform fall protection hazard assessments for job tasks.
- 2. To coordinate the acquisition of ANSI compliant fall protection systems.
- 3. To perform routine safety checks of work operations.
- 4. Supervise the enforcement of the company fall protection program.
- 5. To train employees and supervisors in recognizing fall hazards and the use of fall protection systems.
- 6. To designate trainers who are competent in the use of fall protection equipment and proficient in training techniques.
- 7. To maintain records of employee training, equipment issue, fall protection systems used at jobsites.
- 8. To monitor employees to verify they are using safe work practices.
- 9. To investigate and document fall protection incidents.

# **Supervisors**

It is the responsibility of supervisors to:

- 1. To make sure that all affected employees have all the fall protection training prior to starting work.
- 2. To ensure that all employees utilize the proper fall protection and personal protective equipment.
- 3. To make sure that the employees are working in accordance with the company safety program.
- 4. To coordinate with management on safety issues.

# **Employees**

Employees have the following responsibilities.

- 1. To complete required fall protection training before starting work.
- 2. To work in accordance with the requirements of this program.
- 3. To use all required fall protection and personal protective equipment.
- 4. To stop work immediately if any safety deficiencies are identified.
- 5. To immediately report any safety issues to a supervisor.

#### Fall Protection Hierarchy

It is company policy to prioritize the elimination of fall protection hazards. Only when it is not feasible to eliminate the hazard will employees be required to work at heights with fall protection systems. Solutions for fall protection hazards will be determined in the following order and priority:

- 1. Eliminate the fall hazard.
  - a. Perform work on the ground.
  - b. Engineer out the hazard, by installing guardrails or moving the equipment to the ground.
- 2. Use of Fall Restraint Systems.
  - a. Use positioning lanyards to prevent falls.
- 3. Use of Personal Fall Arrest Systems
  - a. Use of personal fall arrest systems.
  - b. Development of a rescue plan.

If adequate fall protection cannot be provided, then the work cannot be performed.

#### Work that Requires Fall Protection

As a general rule, any construction work that occurs six or more feet above a lower level must involve the use of fall protection. Employees must also use fall protection if there is a danger of falling into hazardous equipment.

A supervisor competent in the use of fall protection shall evaluate the worksite(s) and determine the specific type(s) of fall protection to be used in the following situations.

#### Hoist Areas

Guardrail systems or personal fall arrest systems will be used in hoist areas when an employee may fall six (6) feet or more. If guardrail systems must be removed for hoisting, employees are required to use personal fall arrest systems.

#### Holes

Covers or guardrail systems shall be erected around holes (including skylights) that are six (6) feet or more above lower levels. If covers or guardrail systems must be removed, employees are required to use personal fall arrest systems.

# Leading Edges

Guardrail systems, safety net systems, or personal fall arrest systems shall be used when employees are constructing a leading edge that is six (6) feet or more above lower levels. An alternative Fall Protection Plan shall be used if Fall Protection Coordinator determines that the implementation of conventional fall protection systems is infeasible or creates a greater hazard to employees. All alternative Fall Protection Plans for work on leading edges shall:

- 1. Be written specific to the particular jobsite needs;
- 2. Include explanation of how conventional fall protection is infeasible or creates a greater hazard to employees;
- 3. Explain what alternative fall protection will be used for each task;
- 4. Be maintained in writing at the jobsite and,
- 5. Meet the requirements of 29 CFR 1926.502(k).

#### Overhand Bricklaying and Related Work

Guardrail systems, safety net systems, personal fall arrest systems, or controlled access zones shall be provided to employees engaged in overhead bricklaying or related work six (6) feet or more above the lower level. All employees reaching more than ten (10) inches below the walking/working surface shall be protected by guardrail systems, safety net systems, or personal fall arrest systems.

#### **Precast Concrete Erection**

Guardrail systems, safety net systems, or personal fall arrest systems shall be provided to employees working six (6) feet or more above the lower level while erecting or grouting precast concrete members. An alternative Fall Protection Plan shall be used if Fall Protection Coordinator determines that the implementation of conventional fall protection systems is infeasible or creates a greater hazard to employees. All alternative Fall Protection Plans for precast concrete erection shall:

1. Be written specific to the particular jobsite needs;

- 2. Include explanation of how conventional fall protection is infeasible or creates a greater hazard to employees;
- 3. Explain what alternative fall protection will be used for each task;
- 4. Be maintained in writing at the jobsite; and
- 5. Meet the requirements of 29 CFR 1926.502(k).

#### **Residential Construction**

Guardrail systems, safety net systems, or personal fall arrest systems shall be provided to employees working six (6) feet or more above the lower level on residential construction projects. However, certain tasks may be performed without the use of conventional fall protection if the fall protection coordinator has determined that such fall protection is infeasible or creates greater hazards to employees. This exemption may only be used in certain situations, The Fall Protection Coordinator shall follow the guidelines of 29 CFR 1926, Subpart M, Appendix E in the development of alternative Fall Protection Plans for residential construction projects.

# Low-Slope Roofs

Fall protection shall be provided to employees engaged in roofing activities on low-slope roofs with unprotected sides and edges six (6) feet or more above lower levels. The type(s) of fall protection needed shall be determined by Fall Protection Coordinator, and may consist of guardrail systems, safety net systems, personal fall arrest systems, or a combination of a warning line system and safety net system, warning line system and personal fall arrest system, or warning line system and safety monitoring system. On roofs 50 feet or less in width, the use of a safety monitoring system without a warning line system is permitted.

# Steep Roofs

Guardrail systems with toe boards, safety net systems, or personal fall arrest systems will be provided to employees working on a steep roof with unprotected sides and edges six (6) feet or more above lower levels.

#### Wall Openings

Guardrail systems, safety net systems, or a personal fall arrest system will be provided to employees working on, at, above, or near wall openings when the outside bottom edge of the wall opening is six (6) feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface.

# Ramps, Runways, and Other Walkways

Employees using ramps, runways, and other walkways six (6) feet or more above the lower level shall be protected by guardrail systems.

#### **Excavations**

Fall protection will be provided to employees working at the edge of an excavation that is six (6) feet or deeper. Employees in these areas are required to use the fall protection systems as designated in this program.

# Types of Fall Protection Systems

A competent person will designate the type of fall protection system that will be implemented for a given hazard condition. These fall protection systems will comply with regulations. The following fall protection systems are authorized, provided they are used in proper situations and meet regulatory requirements:

- 1. Covers.
- 2. Guardrails.
- 3. Personal fall arrest systems.
- 4. Positioning device systems.
- 5. Safety monitoring systems.
- 6. Safety net systems.
- 7. Warning line systems.
- 8. Controlled access zones.

#### Protection from Falling Objects

When guardrail systems are in use, the openings shall be small enough to prevent potential passage of falling objects. The following procedures must be followed by all employees to prevent hazards associated with falling objects.

- 1. No materials (except masonry and mortar) shall be stored within four (4) feet of working edges.
- 2. Excess debris shall be removed regularly to keep work areas clear.
- 3. During roofing work, materials and equipment shall be stored no less than six (6) feet from the roof edge unless guardrails are erected at the edge.
- 4. Stacked materials must be stable and self-supporting.
- 5. Canopies shall be strong enough to prevent penetration by falling objects.
- 6. Toe boards erected along the edges of overhead walking/working surfaces shall be:
  - a. Capable of withstanding a force of at least 50 pounds; and
  - b. Solid with a minimum of three and a half (3 ½) inches tall and no more than one quarter (1/4) inch clearance above the walking/working surface.
- 7. Equipment shall not be piled higher than the toe board unless sufficient paneling or screening has been erected above the toe board.

# Inspection, Maintenance & Storage

As with all protective equipment, the equipment is only protective when it is functioning properly. The same holds true for fall protection equipment. Fall protection equipment must be

visually inspected by the user prior to each use and periodically by a competent person to ensure the equipment is in good working order and ready for use.

Fall protection equipment must be inspected to ensure the equipment is properly functioning. Manufacturer's recommendations must be followed for inspection, maintenance and storage of fall protection equipment.

If a fall arrest system is used to control a fall, affected components of the system must be taken out of service and inspected to ensure they are in functional condition. Some components, such as the shock absorbing lanyard or retractable lifeline, must be returned to the manufacturer for recertification following their use in a fall situation.

Soiled or contaminated body wear (harnesses) can be cleaned in warm water using a mild soap and scrub cloth. The equipment must be thoroughly rinsed with fresh water following any detergent cleaning. Other fall protection equipment can be surface cleaned with water. Harsh chemicals should never be used to clean the fall protection equipment. Upon the completion of cleaning, the equipment must be allowed to dry thoroughly and placed in a clean and dry location to allow for proper storage.

Labels must be visible and legible on all fall protection equipment. If not, they must be removed from service, regardless of equipment condition.

#### Rescue Plans

Every job site or work evolution must have a documented rescue plan that provides direction in the event that a fall occurs, and an employee requires rescue. There are two options for rescue.

- 1. Emergency Services Rescue If the company relies on emergency services for rescue, the following considerations must be met:
  - a. They must be able to reach the location of a fallen worker in a timely manner.
  - b. Emergency Services must be on duty the entire time work is being performed.
  - c. Emergency Services must have the training and equipment to reach the worker at height.
  - d. Emergency Services must have sufficient backup capacity to provide assistance even if there is another emergency.
  - e. Emergency Services must be informed on the hazards of suspension trauma.
- 2. Employee Provided Rescue If employees are designated to perform rescue, the company will:
  - a. Designate an experienced Competent Rescuer who is an individual designated by the employer who, by training, knowledge and experience is capable of the implementation, supervision and monitoring of the employer's fall protection rescue program.
  - b. Designate Authorized Rescuers who have been trained by a Competent Rescuer on rescue equipment and procedures.

#### **Training**

All employees who may be exposed to fall hazards are required to receive training on how to recognize such hazards, and how to minimize their exposure to them. Employees shall receive training as soon after employment as possible, and before they are required to work in areas where fall hazards exist.

A record of employees who have received training and training dates shall be maintained by the Safety Compliance Liaison. Training of employees shall include:

- 1. Nature of the fall hazards employees may be exposed to.
- 2. Correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems.
- 3. Use and operation of controlled access zones, guardrails, and personal fall arrest systems, safety nets, warning lines, and safety monitoring systems.
- 4. Role of each employee in the Safety Monitoring System (if one is used).
- 5. Limitations of the use of mechanical equipment during roofing work on low-slope roofs (if applicable).
- 6. Correct procedures for equipment and materials handling, and storage and erection of overhead protection.
- 7. Role of each employee in alternative Fall Protection Plans (if used).
- 8. Requirements of the OSHA Fall Protection Standard, 29 CFR 1926, Subpart M.
- 9. Requirements for reporting incidents that cause injury to an employee.

Additional training shall be provided on an annual basis, or as needed when changes are made to this Fall Protection Program, an alternative Fall Protection Plan, or the OSHA Fall Protection Standard.

#### Written Fall Protection Plans

While OSHA does not specifically require a fall protection plan, the company will provide a written outline of the fall protection requirements for each site, facility, or work area as needed. These plans will be posted in a common area for employees to review.

# Fall Protection Plan Requirements

The fall protection plan will include:

- 1. The name of the facility, site, or area.
- 2. The location.
- 3. The name of the fall protection supervisor.
- 4. The date the plan is adopted.
- 5. A basic description of work.
- 6. Any alternative fall protection plans in place at the facility.
- 7. The fall protection hierarchy.
- 8. Fall protection hazard assessment and mitigation.
- 9. The rescue plan.

#### Alternative Fall Protection Plans

OSHA allows companies to develop alternative fall protection plans for leading edge work, precast concrete construction work, and residential construction. These alternative plans can only be used if the employer can demonstrate the conventional fall protection methods are infeasible or create a greater hazard. Alternative fall protection plans will be:

- 1. Approved by a qualified person.
- 2. Maintained at the job site.
- 3. Implemented under the supervision of a competent person.
- 4. Document the reasons will regular fall protection cannot be used.
- 5. A written discussion of other measures used to protect employees.
- 6. Identify each location where conventional fall protection cannot be used.
- 7. Designate controlled access zones or safety monitoring systems as required.
- 8. Include the name of the employees who will be working in these areas.

# Purpose

The management of Windsor Companies is committed to preventing accidents and ensuring the safety and health of our employees. We will comply with all applicable federal and state health and safety rules and provide a safe, healthful environment for all our employees. To ensure that information about the dangers of all hazardous chemicals used by the company is known by all affected employees, the following hazardous information program has been established. Under this program, employees will be informed of the contents of the OSHA Hazard Communications standard, the hazardous properties of chemicals in the work area, safe handling procedures and chemical protective measures.

This written hazard communication plan will be available at the following location for review by all employees: Safety Compliance Liaison office.

# **Program Responsibilities**

# Management

Management has the following responsibilities:

- 1. To establish guidelines for hazard communication that meets the need of the company and is compliant with OSHA and local regulations.
- 2. To ensure that employees are provided with the proper materials for communicating hazards to employees.
- 3. To designate an employee to administer and supervise the hazard communication program.
- 4. To provide training to employees on hazard communication.
- 5. To ensure the company is operating in accordance with this policy by performing periodic reviews and audits.
- 6. To review this safety policy for effectiveness periodically and when program deficiencies are discovered.

#### **Hazard Communication Supervisor**

The company Hazard Communication Program Coordinator is the Safety Compliance Liaison and can be contacted at 651-482-0205. The Hazard Communication Program Coordinator has the following responsibilities:

- 1. To supervise the implementation and execution of the hazard communication program.
- 2. To provide or coordinate hazard communication training for employees.
- 3. To ensure that materials received to the company are properly labeled and have safety data sheets (SDS).
- 4. To ensure that all chemicals used at the facility are included on the chemical inventory list.
- 5. To ensure that the company hazard communication program meets the requirements of OSHA.
- 6. To schedule periodic audits to monitor program effectiveness.

# **Supervisors**

Supervisors have the following responsibilities:

- 1. To ensure that their functional areas have the appropriate hazard warnings.
- 2. To ensure that their functional areas have the proper SDS and that they are available to employees.
- 3. To make sure no employees work with or near chemicals without receiving the appropriate training.
- 4. To provide communication between employees and management on safety issues.

# **Employees**

Employees have the following responsibilities:

- 1. To attend required safety training classes prior to starting work.
- 2. To make sure that all chemicals used in the workplace are properly labeled.
- 3. To review the safety data sheet for each chemical prior to using it.

# Chemical Shipping Container Labeling

The Safety Compliance Liaison will verify that all shipping containers with hazardous chemicals received for use are properly labeled.

# Hazard Communication GHS Shipping Labeling Requirements.

Chemical shipping containers must be labeled with the following information.

- 1. A product identifier.
- 2. A signal word, either "Danger" or "Warning".
- 3. A hazard statement.
- 4. A standard pictogram.
- 5. A precautionary statement.
- 6. The name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

It is the policy of the company that no chemicals will be released for work until this information is verified.



Secondary Chemical Container Labeling

The supervisor of each work area will ensure that all secondary chemical containers are

properly labeled. Secondary chemical container labeling can be labeled with the same shipping container labels, or information that communicates the following:

- 1. The identity of the chemical.
- 2. The hazards of the chemical.

The label may use a combination of words, symbols or pictures to communicate this information. The company will use a standard labeling method for all secondary containers.

Secondary Container Labeling Items
Product Identifier
Hazard Statement
Warnings and Precautions
Required PPE
Signal Word

# Safety Data Sheets

The Safety Compliance Liaison will establish and maintain the company Safety Data Sheet program. This person will ensure that procedures are in place that maintains the necessary SDSs and that new ones are reviewed for new or significant safety and health information. Any new information will be immediately communicated to employees and added to the SDS storage locations. Copies of Safety Data Sheets for all hazardous chemicals to which employees of this enterprise may be exposed will be stored at:

- 1. Safety Compliance Liaison Office
- 2. In compliance with job-site specifications

SDSs will be available to all employees in their work area for review during each work shift. If SDSs are not available or new chemicals in use do not have an SDS, employees may not use the chemical, and they will immediately contact the Safety Compliance Liaison.

If a SDS is not received with a shipment of chemicals, those chemicals will be kept away from employees and out of use in a staging area until a proper SDS is obtained. Old safety data sheets that are no longer applicable must be removed from the SDS binder.

#### Hazardous Non-Routine Tasks

Periodically, employees must perform hazardous non-routine tasks. Before starting work on such projects, each affected employee will be given information by the owner or area supervisor about hazardous chemicals to which they may be exposed during such activity.

This information will include:

- Specific chemical hazards.
- Protective/safety measures employees can take.
- Measures the enterprise has taken to reduce the hazard, including ventilation, respirators, presence of other employees, and emergency procedures.

The following are examples of hazardous non-routine tasks that may be expected of employees.

<u>Hazardous Task</u>	Associated Hazardous Chemical

# Chemicals in Pipes

Some work activities are performed by employees in areas where chemicals are transferred through pipes. Prior to starting work in these areas, employees will contact the Safety Compliance Liaison for information regarding:

- The chemicals in the pipes, or the insulation material on the pipe.
- Potential hazards.
- Safety precautions to be taken.

#### Hazardous Chemical List

The company will maintain a list of all hazardous chemicals in use at this facility as part of this written program. The following is a list of all known hazardous chemicals used by Windsor Companies employees. More information on each chemical noted is available by reviewing the SDSs.

Chemical Inventory		
Product Name	Hazard Warning	Location

# **Training Requirements**

The Safety Compliance Liaison is responsible for the Hazard Communication Training program and will ensure that its elements are carried out. Prior to starting work, each new employee of Windsor Companies will attend a health and safety orientation and will receive information and training on the following:

- 1. An overview of the requirements contained in 1910.1200 Hazard Communication Rule.
- 2. Chemicals present in their workplace operations.
- 3. Location and availability of our written hazard communication program and SDSs.
- 4. Physical and health effects of the hazardous chemicals.
- 5. The symptoms of overexposure to hazardous chemicals.
- 6. Methods and observation techniques used to determine the presence or release of hazardous chemicals in the work area.

- 7. How to reduce or prevent exposure to these hazardous chemicals through the use of control/work practices and personal protective equipment.
- 8. Steps the company has taken to reduce or prevent exposure to the chemicals.
- 9. Safety emergency procedures to follow if the employee is exposed to these chemicals.
- 10. How to read labels and review SDSs to obtain proper hazard information.

This training program will consist of two parts. The first part is a classroom training session, where the requirements of the OSHA Hazard Communication Standard and the company Hazard Communication Plan are covered. The second part consists of a workplace evaluation where the employee demonstrates the required knowledge, understanding, and abilities of the course. After completing the training class, each employee will sign a form to verify they attended the training and understood the policies on hazard communication.

Prior to a new hazardous chemical being introduced into any area of this workplace, each employee of that area will be given training as outlined above. The Safety Compliance Liaison is responsible for ensuring that SDSs on any new chemicals are available.

# **Contractor Requirements**

It is the responsibility of the Safety Compliance Liaison to provide contractors the following information:

- Hazardous chemicals to which they may be exposed to while on the job site, and the procedure for obtaining SDSs.
- Precautions employees may take to lessen the possibility of exposure, by using appropriate protective measures, and an explanation of the labeling system used.
- The company hazardous chemical labeling system.

This information will be communicated as part of a contractor site safety orientation. It is the responsibility of Safety Compliance Liaison to identify and obtain SDSs for the chemicals that contractors bring into the workplace.

#### **Program Evaluation**

The company hazard communication program will be reviewed on a yearly basis. The company will evaluate the effectiveness of the program, and correct any deficiencies discovered. Employees will have an opportunity to review and comment on this program. Program reviews will also be conducted whenever any incident causes the company to question the effectiveness of the program.

#### Ladders and Stairways

The purpose of this program is to establish the policies and requirements for using ladders and stairways. The company is committed to providing a safe work environment for all employees. All employees who are involved with the construction, usage, or maintenance of ladders and stairways on the construction site must be familiar with the policies of this program.

#### **Program Responsibilities**

# Management

Management has the following responsibilities:

- 1. To provide ladders and stairways that are safe and meet the safety requirements of OSHA.
- 2. To develop a ladder safety policy and revise it when necessary.
- 3. To identify employees who are affected by this policy and ensure that they receive the required training.
- 4. To provide required protective equipment to employees.
- 5. To provide technical support to employees for ladder and stairway issues.
- 6. To ensure the company is operating in accordance with this policy by performing periodic reviews and audits.
- 7. To review this safety policy for effectiveness periodically and when deficiencies are discovered.

# **Supervisors**

Supervisors have the following responsibilities:

- 1. To ensure that no employee performs work on ladders and stairways without receiving the required safety training.
- 2. To provide communication between employees and management on safety issues.
- 3. To make sure that employees have available and use all required personal protective equipment.
- 4. To monitor employees to verify they are using safe work practices.

#### **Employees**

Employees have the following responsibilities:

- 1. To complete all required safety training before using ladders and stairways.
- 2. To wear all required personal protective equipment.
- 3. To work in accordance with the rules of this program.
- 4. To immediately report any safety issues to a supervisor.

#### **Training Requirements**

All operators and employees who build, maintain, or perform work on ladders or stairways must be trained on their safety requirements. This training consists of both theory and demonstration of competency.

#### Theory

Employees must be trained by a competent person on the following ladder safety subjects:

- 1. The nature of fall hazards in the work area.
- 2. The correct procedures for erecting, maintaining, and disassembling the fall protection systems to be used.
- 3. The proper construction, use, placement, and care in handling of all stairways and ladders.
- 4. The maximum intended load-carrying capacities of ladders.
- 5. The standards contained in the Ladder and Stairway subpart.

#### Performance Requirements

Once the employee has completed their safety theory training, employees must demonstrate the ability to work safely on ladders and stairways.

#### Retraining

The employee must be retrained when they demonstrate a lack of competency, a safety incident occurs, or when required by management.

# Ladder Requirements

All portable and fixed ladders must meet the design specifications of the OSHA Ladders and Stairways subpart. It is the responsibility of management to provide ladders that meet these requirements.

#### **Ladder Inspections**

Ladders must be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe use.

#### Portable Ladders

Portable ladders should be inspected for:

- 1. Broken or missing rungs.
- 2. Broken cleats.
- 3. Damaged steps.
- 4. Broken or split rails.
- 5. Corroded components.
- 6. Faulty or defective components.

# **Fixed Ladders**

Fixed ladders should be inspected for:

- 1. Broken or missing rungs.
- 2. Broken or missing cleats.
- 3. Broken or missing steps.
- 4. Broken or split rails.
- 5. Corroded components.
- 6. Faulty or defective components.

# Removing Ladders from Service

Defective ladders must be removed from service and tagged "Do Not Use." Defective portable ladders should be removed from the work area. Fixed ladders should be tagged and physically blocked to prevent usage.

# Returning Ladders to Service

Ladders may not be returned to service until the ladder condition is restored to its original design criteria.

#### Ladder Safe Work Practices

All employees will adhere to the following safe work practices:

- Read and follow all labels/markings on the ladder.
- Avoid electrical hazards! Look for overhead power lines before handling a ladder. Avoid using a metal ladder near power lines or exposed energized electrical equipment.
- Always inspect the ladder prior to using it. If the ladder is damaged, it must be removed from service and tagged until repaired or discarded.
- Do not use a self-supporting ladder (e.g., step ladder) as a single ladder or in a partially closed position.
- Do not use the top step/rung of a ladder as a step/rung unless it was designed for that purpose.
- Always maintain a 3-point (two hands and a foot, or two feet and a hand) contact on the ladder when climbing. Keep your body near the middle of the step and always face the ladder while climbing.
- Only use ladders and appropriate accessories (ladder levelers, jacks or hooks) for their designed purposes.
- Ladders must be free of any slippery material on the rungs, steps or feet.
- Use a ladder only on a stable and level surface, unless it has been secured (top or bottom) to prevent displacement.
- Do not place a ladder on boxes, barrels or other unstable bases to obtain additional height.
- Do not move or shift a ladder while a person or equipment is on the ladder.

- An extension or straight ladder used to access an elevated surface must extend at least 3 feet above the point of support. Do not stand on the three top rungs of a straight, single or extension ladder.
- The proper angle for setting up a ladder is to place its base a quarter of the working length of the ladder from the wall or other vertical surface.
- A ladder placed in any location where it can be displaced by other work activities must be secured to prevent displacement or a barricade must be erected to keep traffic away from the ladder.
- Be sure that all locks on an extension ladder are properly engaged.
- Do not exceed the maximum load rating of a ladder. Be aware of the ladder's load rating and of the weight it is supporting, including the weight of any tools or equipment.

#### **Electrical Hazards**

If work is being performed in an area where the employee or the ladder could contact exposed energized electrical equipment, ladders with nonconductive side rails must be used. In addition, the employee is required to follow all company policies and procedures for performing work near exposed energized electrical equipment.

#### **Inclement Weather**

The following special requirements apply to work on ladders during inclement weather conditions.

Snow / Ice	Employees may not work during snowy conditions, unless the snow has
	stopped and all ice and snow has been removed from the ladder surfaces

# High Winds Employees may not work during high wind situations unless special precautions are taken. A competent person must determine that work can proceed safely by recommending the use of fall protection systems and wind screens that are used in accordance with OSHA standards.

# **Lightening** Employees are not allowed to perform work while lightening conditions exist, and must wait a suitable amount of time after storm passage to recommence work.

# **Excavation and Trenching**

The purpose of this program is to establish the policies and requirements for the company trenching and excavation safety program. The company is committed to providing a safe work environment for all employees. All employees who are involved with trench and excavation work must be familiar with the requirements of this program, and must be trained on the relevant hazards of the workplace.

#### **Program Responsibilities**

# Management

Management has the following responsibilities:

- 1. To provide personal protective equipment and protective systems that meet the requirements of OSHA.
- 2. To develop an excavation safety policy and revise it when necessary.
- 3. To identify employees who are affected by this policy and ensure that they receive the required training.
- 4. To provide technical support to employees.
- 5. To ensure the company is operating in accordance with this policy by performing periodic reviews and audits.
- 6. To provide atmospheric testing and equipment when necessary.
- 7. To review this safety policy for effectiveness annually and when deficiencies are discovered

# **Program Coordinator**

The Excavation & Trenching Program Coordinator is the Safety Compliance Liaison. The program coordinator has the following responsibilities:

- 1. To manage the administration of the company excavation program.
- 2. To ensure that the company excavation program is adhered to.
- 3. To conduct periodic inspections to assure compliance.
- 4. To coordinate the training for all employees.
- 5. To determine the means of protection for each excavation site.
- 6. To ensure that professional engineers are consulted as necessary.
- 7. To make a copy of this program and the OSHA excavation standard available to employees.

#### **Supervisors**

Supervisors have the following responsibilities:

- 1. To ensure that no employee performs work in or near excavations without receiving the required safety training.
- 2. To make sure that employees are working in accordance with this program.

- 3. To provide communication between employees and management on safety issues.
- 4. To make sure that employees have available and use all required personal protective equipment.
- 5. To monitor employees to verify they are using safe work practices.
- To ensure that competent person inspections are performed daily and as conditions require.

# **Employees**

Employees have the following responsibilities:

- 1. To complete all required safety training before working near excavations.
- 2. To wear all required personal protective equipment.
- 3. To work in accordance with the rules of this program.
- 4. To immediately report any safety issues to a supervisor.

# **Training Requirements**

The following training requirements apply:

- 1. All operators and employees who work near or in excavations must be trained by company designated trainers on the requirements of this program, and on the relevant hazards of the workplace.
- 2. Training must occur prior to the first work assignment.
- 3. Retraining is required when:
  - a. When employees demonstrate a lack of proficiency.
  - b. When work place hazards change.
  - c. As determined by the employer.
- 4. Training records will be maintained by the employer and must include:
  - a. Date of the training.
  - b. Name of the trainer(s).
  - c. Employee names and signatures.

# **Training Topics**

Excavation safety training must include:

- 1. Safe work practices for working in excavations.
- 2. The use of personal protective equipment required for excavation work.
- 3. Requirements for excavations that may include atmospheric hazards.
- 4. The requirements of the OSHA excavation standard.
- 5. Emergency and non-entry rescue methods, and the procedure for calling rescue services.
- 6. The company policy for reporting injuries.

# **Excavation Requirements**

# Utilities and Pre-Work Site Inspection

Prior to excavation, the site shall be thoroughly inspected by a company designated competent person to determine if special safety measures must be taken.

#### Surface Encumbrances

All equipment, materials, supplies, permanent installations (i.e., buildings or roadways), trees, brush, boulders, and other objects on the surface that could present a hazard to employees working in the excavation shall be removed or supported as necessary to protect employees. If these surface encumbrances cannot be safely managed, the work may not occur.

#### **Underground Installations**

- 1. Utility companies must be contacted and advised of the proposed work before it starts. They will be asked to provide the locations of their underground installations.
- 2. The location of sewer, telephone, fuel, electric, water, or any other underground installations or wires that may be encountered during excavation work shall be determined and marked prior to opening an excavation. Arrangements will be made as necessary by the Program Coordinator with the appropriate utility entity for the protection, removal, shutdown, or relocation of underground installations.
- 3. If it is not possible to establish the exact location of these installations, the work may proceed with caution if detection equipment or other safe and acceptable means are used to locate the utility.
- 4. Excavation shall be done in a manner that does not endanger the underground installations or the employees engaged in the work. Utilities left in place shall be protected by barricades, shoring, suspension, or other means as necessary to protect employees.

#### Protection of the Public

Barricades, walkways, lighting, and posting shall be provided as necessary for the protection of the public prior to the start of excavation operations.

- 1. Guardrails, fences, or barricades shall be provided on excavations adjacent to walkways, driveways, and other pedestrian or vehicle thoroughfares. Warning lights or other illumination shall be maintained as necessary for the safety of the public and employees from sunset to sunrise.
- 2. Wells, holes, pits, shafts, and all similar hazardous excavations shall be effectively barricaded or covered and posted as necessary to prevent unauthorized access. All temporary excavations of this type shall be backfilled as soon as possible.
- 3. Walkways or bridges protected by standard guardrails shall be provided where employees and the general public are permitted to cross over excavations. Where workers in the excavation may pass under these walkways or bridges, a standard guardrail and toe board shall be used to prevent the hazard of falling objects.

# Protection of Employees

Stairs, ladders, or ramps shall be provided at excavation sites where employees are required to enter trench excavations over four (4) feet deep. These access ladders must be within 25 feet of the worker.

#### Structural Ramps

- 1. Structural ramps used solely by employees as a means of access or egress from excavations shall be designed by a competent person. Structural ramps used for access or egress of equipment shall be designed by a person qualified in structural design, and shall be constructed in accordance with the design.
- 2. Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent movement or displacement.
- 3. Structural members used for ramps and runways shall be of uniform thickness.
- 4. Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.
- 5. Structural ramps used in place of steps shall be provided with cleats or other surface treatments on the top surface to prevent slipping.

#### Ladders

- 1. When portable ladders are used, the ladder side rails shall extend a minimum of three (3) feet above the upper surface of the excavation.
- 2. Ladders shall have nonconductive side rails if work will be performed near exposed energized equipment or systems.
- 3. Two or more ladders, or a double-cleated ladder, will be provided where 25 or more employees will be conducting work in an excavation where ladders serve as the primary means of egress, or where ladders serve two-way traffic.
- 4. Ladders will be inspected prior to use for signs of damage or defects. Damaged ladders will be removed from service and marked with "Do Not Use" until repaired.
- 5. Ladders shall be used only on stable and level surfaces unless secured. Ladders placed in any location where they can be displaced by workplace activities or traffic shall be secured, or barricades shall be used to keep these activities away from the ladders.
- 6. Non self-supporting ladders shall be positioned so that the foot of the ladder is one-quarter of the working length away from the support.
- 7. Employees are not permitted to carry any object or load while on a ladder that could cause them to lose their balance and fall.

#### Exposure to Vehicular Traffic

Employees exposed to vehicular traffic shall be provided with, and shall wear warning vests or other suitable garments marked with or made of reflective or high-visibility material. Warning

vests worn by flagmen shall be red or orange, and must have reflective material. Emergency lighting, such as spotlights or portable lights, shall be provided as needed to perform work safely.

# Exposure to Falling Loads

No employee is permitted underneath loads being handled by lifting or digging equipment. Employees are required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles provide adequate protection for the operator during loading and unloading operations.

# Warning System for Mobile Equipment

A warning system shall be used when mobile equipment is operated adjacent to the edge of an excavation if the operator does not have a clear and direct view of the edge of the excavation. The warning system shall consist of barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

# Hazardous Atmospheres

The Program Coordinator or designated representative will test the atmosphere in excavations over four feet deep if a hazardous atmosphere exists or could reasonably be expected to exist.

- 1. Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or forced ventilation of the workspace.
- 2. Forced ventilation or other effective means shall be used to prevent employee exposure to an atmosphere containing a flammable gas in excess of ten percent of the lower flammability limit of the gas.
- 3. When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, continuous air monitoring will be used. The device used for atmospheric monitoring shall be equipped with an audible and visual alarm.
- 4. Atmospheric testing will be performed using a properly calibrated direct reading gas monitor. Direct reading gas detector tubes or other acceptable means may also be used to test potentially toxic atmospheres.
- 5. Each atmospheric testing instrument shall be calibrated by Windsor Companies on a schedule and in the manner recommended by the manufacturer. In addition:
  - a. Any atmospheric testing instrument that has not been used within 30 days shall be recalibrated prior to use.
  - b. Each atmospheric testing instrument shall be calibrated at least every six months.
- 6. Each atmospheric testing instrument will be field checked immediately prior to use to ensure that it is operating properly.

#### Personal Protective Equipment

- 1. All employees working in trenches or excavations shall wear approved hardhats and steel-toed shoes or boots.
- 2. Employees exposed to flying fragments, dust or other materials produced by drilling, sawing, sanding, grinding, and similar operations shall wear approved safety glasses with side shields.
- 3. Employees performing welding, cutting, or brazing operations, or are exposed to the hazards produced by these tasks, shall wear approved spectacles or a welding face shield or helmet, as required by the company welding and cutting policy.
- 4. Employees entering bell-bottom pier holes or other similar deep and confined footing excavations shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.
- 5. Employees shall wear approved gloves or other suitable hand protection.
- 6. Employees using or working in the immediate vicinity of hammer drills, masonry saws, jackhammers, or similar high-noise producing equipment shall wear suitable hearing protection.
- 7. Each employee working at the edge of an excavation six feet or more deep shall be protected from falling. Fall protection shall include guardrail systems, fences, barricades, covers, or a tie-back system meeting OSHA requirements.
- 8. Emergency rescue equipment, such as breathing apparatus, a safety harness and line, and a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may develop during work in an excavation. This equipment shall be attended when in use. Only personnel who have received approved training and have appropriate equipment shall attempt retrieval that would require entry into a hazardous atmosphere. If entry into a known hazardous atmosphere must be performed, the Program Coordinator shall be given advance notice so that the hazards can be evaluated and rescue personnel placed on standby if necessary.

#### Walkways and Guardrails

Walkways shall be provided where employees or equipment are permitted to cross over excavations. Guardrails shall be provided where walkways, accessible only to on-site project personnel, are six (6) feet or more above lower levels.

#### Protection from Water Accumulation Hazards

1. Employees are not permitted to work in excavations that contain or are accumulating water unless precautions have been taken to protect them from the hazards posed by water accumulation. Precautions may include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of safety harnesses and lifelines.

- 2. If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operation shall be monitored by a person trained in the use of that equipment.
- 3. If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation. Precautions shall also be taken to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains shall be inspected by a competent person after each rain incident to determine if additional precautions, such as special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of safety harnesses and lifelines, should be used.

# Stability of Adjacent Structures

The Program Coordinator or designated representative will determine if the excavation work could affect the stability of adjoining buildings, walls, sidewalks, or other structures.

- 1. Support systems (such as shoring, bracing, or underpinning) shall be used to assure the stability of structures and the protection of employees where excavation operations could affect the stability of adjoining buildings, walls, or other structures.
- 2. Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted, except when:
  - a. a support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure;
  - b. the excavation is in stable rock;
  - c. a registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity; or
  - d. A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.
- 3. Sidewalks, pavements, and appurtenant structures shall not be undermined unless a support system or other method of protection is provided to protect employees from possible collapse of such structures.
- 4. Where review or approval of a support system by a registered professional engineer is required, the Program Coordinator shall secure this review and approval in writing before the work begins.

# Protection from Falling Objects and Loose Rocks or Soil

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

- b. installation of protective barricades, such as wire mesh or timber, at appropriate intervals on the face of the slope to stop and contain falling material; or
- c. benching sufficient to contain falling material.
- 2. Excavation personnel shall not be permitted to work above one another where the danger of falling rock or earth exists.
- 3. Employees shall be protected from excavated materials, equipment, or other materials that could pose a hazard by falling or rolling into excavations.
- 4. Protection shall be provided by keeping such materials or equipment at least two (2) feet from the edge of excavations, by use of restraining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.
- 5. Materials and equipment need to be stored further than two (2) feet from the edge of the excavation.
- 6. Materials piled, grouped, or stacked near the edge of an excavation must be stable and self-supporting.

# **Excavation Protective System Requirements**

# Protection of Employees

- 1. Employees in an excavation shall be protected from cave-ins by using either an adequate sloping and benching system or an adequate support or protective system. The only exceptions are:
  - a. excavations made entirely in stable rock; or
  - b. excavations less than five (5) feet in depth where examination of the ground by a competent person provides no indication of a potential cave-in.
- 2. Protective systems shall be capable of resisting all loads that could reasonably be expected to be applied to the system.

# Design of Sloping and Benching Systems

The slope and configuration of sloping and benching systems shall be selected and constructed under the direction of the Program Coordinator in accordance with the following options:

- 1. Allowable configurations and slopes
  - a. Excavations shall be sloped at an angle no steeper than one and one-half (1 ½) horizontal to one (1) vertical (34 degrees measured from the horizontal), unless one of the options listed below is used.
  - b. Slopes shall be properly excavated depending on soil type as shown in 29 CFR 1926, Subpart P, Appendix B.
  - c. Determination of slopes and configurations using 29 CFR 1926, Subpart P, Appendices A and B

- d. The maximum allowable slopes and allowable configurations for sloping and benching systems shall meet the requirements set forth in these appendices.
- 2. Designs using other tabulated data
  - a. The design of sloping or benching systems may be selected from, and shall be constructed in accordance with, other tabulated data, such as tables and charts. The tabulated data used must be in written form and include the following:
    - i. Identification of the factors that affect the selection of a sloping or benching system.
    - ii. Identification of the limits of the use of the data, including the maximum height and angle of the slopes determined to be safe.
    - iii. Other information needed by the user to make correct selection of a protective system.
    - iv. At least one copy of the tabulated data that identifies the registered professional engineer who approved the data shall be maintained at the jobsite during construction of the protective system. After that time, the data may be stored off the jobsite, and shall be maintained by the company.
- 3. Design by a registered professional engineer
  - a. Sloping or benching systems designed in a manner other than those described in the preceding three options shall be approved by a registered professional engineer.
  - b. Designs shall be in written form and shall include at least the following information:
    - i. the maximum height and angle of the slopes that were determined to be safe for a particular project; and
    - ii. the identity of the registered professional engineers who approved the design.
    - iii. At least one copy of the design shall be maintained at the jobsite while the slope is being constructed. After that time, the design may be stored off the jobsite, and shall be maintained by the company.

#### Design of Support, Shield, and Other Protective Systems

The design of support systems, shield systems, and other protective systems shall be selected and constructed under the direction of the Program Coordinator in accordance with the following requirements:

- 1. Designs using 29 CFR 1926, Subpart P, Appendices A, C and D
- 2. Timber shoring in trenches shall be designed in accordance with the requirements of the OSHA guidelines.
- 3. Aluminum hydraulic shoring shall be designed in accordance with the manufacturer's tabulated data or the requirements of the OSHA guidelines.

- 4. Designs using manufacturer's tabulated data
  - a. Support systems, shield systems, and other protective systems designed from manufacturer's tabulated data shall be constructed and used in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.
  - b. Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer shall be allowed only after the manufacturer issues specific written approval.
  - c. Manufacturer's specifications, recommendations, and limitations, as well as the manufacturer's written approval to deviate from the specifications, recommendations, and limitations, shall be kept in written form at the jobsite during construction of the protective system(s). After that time, the information may be stored off the jobsite, and shall be maintained by the company.
- 5. Designs using other tabulated data
  - Designs of support systems, shield systems, and other protective systems shall be selected from and constructed in accordance with tabulated data, such as tables and charts.
  - b. The tabulated data shall be in written form and shall include all of the following:
    - i. identification of the factors that affect the selection of a protective system drawn from such data;
    - ii. identification of the limits of the use of such data; and
    - iii. information needed by the user to make a correct selection of a protective system from the data.
  - c. At least one written copy of the tabulated data, which identifies the registered professional engineer who approved the data, shall be maintained at the jobsite during construction of the protective system. After that time, the data may be stored off the jobsite, and shall be maintained by the company.
- 6. Design by a registered professional engineer
  - a. Support systems, shield systems, and other protective systems designed in a manner other than the preceding three options shall be approved by a registered professional engineer.
  - b. Designs shall be in written form and shall include:
    - i. a plan indicating the sizes, types, and configurations of the materials to be used in the protective system; and
    - ii. the identity of the registered professional engineer who approved the design.
  - c. At least one copy of the design shall be maintained at the jobsite during construction of the protective system. After that time, the design may be stored off the jobsite, and shall be maintained by the company.

# Materials and Equipment

- 1. Materials and equipment used for protective systems shall be free from damage or defects that might affect their proper function.
- 2. Manufactured materials and equipment used for protective systems shall be used and maintained in accordance with the recommendations of the manufacturer, and in a manner that will prevent employee exposure to hazards.
- 3. When materials or equipment used for protective systems are damaged, the Program Coordinator shall ensure that these systems are examined by a competent person to evaluate suitability for continued use. If the competent person cannot assure that the material or equipment is able to support the intended loads or is otherwise suitable for safe use, then such material or equipment shall be removed from service. The material or equipment shall then be evaluated and approved by a registered professional engineer before being returned to service.

# Installation and Removal of Supports

#### 1. General

- a. Members of support systems shall be securely connected together to prevent sliding, falling, kickouts, or other potential hazards.
- b. Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support systems.
- c. Individual members of the support systems shall not be subjected to loads exceeding those that they were designed to support.
- d. Before temporary removal of individual support members begins, additional precautions shall be taken to ensure the safety of employees (i.e., the installation of other structural members to carry the loads imposed on the support system).
- e. Removal of support systems shall begin at, and progress from, the bottom of the excavation. Members shall be released slowly. If there is any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation, the work shall be halted until it can be examined.
- f. Backfilling shall progress in conjunction with the removal of support systems from excavations.

# 2. Additional Requirements

a. Excavation of material to a level no greater than two (2) feet below the bottom of the members of a support system is allowed, but only if the system is designed to resist the forces calculated for the full depth of the trench. There shall be no indications of a possible loss of soil from behind or below the bottom of the support system while the trench is open.

b. Installation of a support system shall be closely coordinated with the excavation of trenches.

# Sloping and Benching Systems

Employees are not permitted to work above other employees in the faces of sloped or benched systems, except when employees at lower levels are protected from the hazards of falling, rolling, or sliding material or equipment.

#### **Shield Systems**

#### 1. General

- a. Shield systems shall not be subjected to loads that are greater than those they are designed to withstand.
- b. Shields shall be installed in a manner that will restrict lateral or other hazardous movement of the shield and could occur during cave-in or unexpected soil movement.
- c. Employees shall be protected from the hazard of cave-ins when entering or exiting the areas protected by shields.
- d. Employees are not permitted in trenches when shields are being installed, removed, or moved vertically.

# 2. Additional Requirements

- a. Excavation of material to a level no greater than two (2) feet below the bottom of the shield system is allowed, but only if the system is designed to resist the forces calculated for the full depth of the trench.
- b. There shall be no indications of a possible loss of soil from behind or below the bottom of the shield system while the trench is open.

# **Inspection Requirements**

Excavations sites must be inspected by a competent person to ensure compliance with safety requirements. If any unsafe conditions are found during these inspections, work must be stopped until the situation is corrected.

# **Daily Inspections**

Excavation sites must be inspected daily by a competent person. They must be inspected for:

- 1. Evidence of situations that could result in cave-ins.
- 2. Indications of failure of protective systems.
- 3. Hazardous atmospheres.
- 4. Employee compliance with safety policies.
- 5. Other hazardous conditions.

#### Foul Weather Inspections

Excavation sites must be inspected after rain and other weather conditions that may affect the safety of the excavation.

# **Periodic Inspections**

Periodic inspections are coordinated by management to verify that this safety policy is adhered to.

# **Scaffolding**

The purpose of this program is to establish safety guidelines for employees who perform work on scaffolding. The company is committed to providing a safe working environment for all employees. All employees who work on or near scaffolding will be trained on the hazards of working with scaffolding and the requirements of this program.

# Program Responsibilities

# Management

Management has the following responsibilities:

- 1. To provide scaffolding and related equipment that is OSHA and ANSI compliant.
- 2. To identify employees who are affected by this policy and ensure that they receive the required training.
- 3. To provide required personal protective equipment to affected employees.
- 4. To ensure the company is operating in accordance with this policy by performing periodic reviews and audits.
- 5. To review this safety policy for effectiveness periodically and when program deficiencies are discovered.

# **Supervisors**

Supervisors have the following responsibilities:

- 1. To ensure that no employees perform work on or near scaffolding without receiving the required safety training.
- 2. To provide communication between employees and management on scaffolding issues.
- 3. To make sure that employees have available and use all required personal protective equipment.

#### **Employees**

Employees have the following responsibilities:

- 1. To complete all required safety training prior to performing work on scaffolding.
- 2. To wear all required personal protective equipment.
- 3. To immediately report any scaffolding safety issues to a supervisor.

#### **Definitions**

For the purposes of this program, the following definitions apply:

Competent Person: 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 authorization

to take prompt corrective measures to eliminate those hazards.

#### **Qualified Person:**

One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

# **Training Requirements**

# **Employees Performing Work on Scaffolding**

Employees performing work on scaffolding must be trained by a person who is 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. The training must include:

- 1. The nature of electrical hazards in the work area.
- 2. The nature of fall hazards in the work area.
- 3. The nature of falling object hazards in the area.
- 4. The correct procedures for dealing with electrical hazards.
- 5. The correct procedures for erecting, maintaining, and disassembling the fall protection systems.
- 6. The correct procedures for erecting, maintaining, and disassembling falling object protection systems.
- 7. The proper use of scaffolding and the proper handling of materials on scaffolding.
- 8. The maximum intended load and load carrying capacities of the scaffolding.
- 9. The relevant requirements of the OSHA scaffolding standard.

# Employees Involved in Erecting, Disassembling, Repairing or Maintaining Scaffolding

Employees who are involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold must be trained by a competent person who can recognize any hazards associated with the work in question. This training must include the following topics:

- 1. The nature of scaffolding hazards.
- 2. The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question.
- 3. The design criteria, maximum intended load-carrying capacity and intended use of the scaffold.
- 4. The relevant requirements of the OSHA scaffolding standard.

#### **Training Frequency**

Employees must be trained before their first assignment to work duty and when:

1. Changes at the worksite present a hazard about which an employee has not been previously trained.

- 3. 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.
- 4. Inadequacies in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.

# Personal Protective Equipment

All employees will be trained on the personal protective equipment that is required to perform their job safely. The company will ensure that all appropriate ANSI certified protective equipment is provided.

#### **Hard Hats**

All employees are required to wear hard hats while working on scaffoldings, or in any area where falling object hazards are present. The company will provide ANSI compliant hard hats to all employees.

#### **Fall Protection**

Fall protection is required for all scaffolding greater than 10 feet above a lower level. The company must designate a competent person to assess fall protection requirements and provide fall protection solutions.

**Guardrails:** Guardrails must be placed along all open sides and ends of platforms.

These guard rails must be compliant with the OSHA scaffolding standard.

**Fall Arrest**: Fall arrest systems must be anchored to a vertical lifeline, horizontal

lifeline, or scaffolding structural member.

#### **Falling Object Protection**

If tools, materials, or equipment could fall from a scaffold and strike others, the area below the scaffold must be barricaded or a toe board must be placed along the edge of the scaffold platform. Paneling or screening must protect persons below when tools, materials, or equipment are piled higher than the top edge of the toe board. Alternatively, guardrail systems, canopies, or catch platforms may be installed to retain materials.

#### Other Personal Protective Equipment

Personal protective equipment will be made available to employees as the hazards dictate. A competent person will evaluate hazards to ensure that proper protection is provided.

# **Scaffolding Inspections**

Scaffolding inspections must be completed by a competent person. These inspections should occur in accordance with OSHA regulations and the manufacturers' documentation. Inspections must occur in the following situations:

- 1. After scaffolding construction, prior to employees accessing the scaffolding.
- 2. Prior to every work shift.
- 3. Whenever employees cite concerns with the scaffolding.
- 4. After any occurrence which could affect a scaffold's structural integrity.

# General Safety Scaffolding Work Practices

Employees will adhere to the following general scaffolding safe work practices.

- The footing or anchorage for scaffolds shall be sound, rigid, and capable of carrying the
  maximum intended load without settling or displacement. Unstable objects such as
  barrels, boxes, loose brick, or concrete blocks shall not be used to support scaffolds or
  planks.
- Guardrails and toe boards shall be installed on all open sides and ends of platforms more
  than 10 feet above the ground or floor, except needle beam scaffolds and floats. Scaffolds
  4 feet to 10 feet in height having a minimum horizontal dimension in either direction of
  less than 45 inches shall have standard guardrails installed on all open sides and ends of
  the platform.
- Scaffolds and their components must be capable of supporting without failure at least 4 times the maximum intended load.
- Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, couplers, etc., damaged or weakened from any cause must be repaired or replaced immediately, and shall not be used until repairs have been completed.
- All planking or platforms must be overlapped (minimum 12 inches) or secured from movement.
- Scaffold plank must extend over their end supports not less than 6 inches or more than 18 inches.
- The poles, legs, or uprights of scaffolds must be plumb and securely and rigidly braced to prevent swaying and displacement.
- Overhead protection must be provided for employees on a scaffold exposed to overhead hazards.
- No welding, burning, riveting, or open flame work shall be performed on any staging suspended by means of fiber or synthetic rope. Only treated or protected fiber or synthetic ropes shall be used for or near any work involving the use of corrosive substances or chemicals.
- Wire, synthetic, or fiber rope used for scaffold suspension shall be capable of supporting at least 6 times the intended load.
- A safe distance from energized power lines shall be maintained.
- Ladders and other devices shall not be used to increase working heights on scaffold platforms.
- Scaffolds shall not be moved while employees are on them.
- Loose materials, debris, and/or tools shall not be accumulated to cause a hazard.

• Employees working on suspended scaffolds shall employ a fall-arrest system.

# **Scaffolding Procedure**

#### 1) Scaffolding Design

- a) All scaffolding must be designed by a qualified person. All persons involved in designing the scaffolding will have the experience and qualifications evaluated by management to ensure they meet the requirements to be designated as a qualified person.
- b) All scaffolding must be designed in accordance with the requirements of OSHA Standard 1910.28 and 1926.450-454. The scaffolding selected must be appropriate for the type of work being performed.

#### 2) Pre-Installation Training

a) Prior to scaffolding construction, all involved employees must be trained on the erection and maintenance of the scaffolding, in accordance with the training requirements of this program.

# 3) Scaffolding Construction

a) Scaffolding must be erected in accordance with the design of the qualified person. Training records of all involved employees prior to allowing them to participate in scaffolding construction.

#### 4) Pre-Work Inspection

a) Prior to the scaffoldings first use, it must be inspected and approved by a competent person.

#### 5) Employee Training

- a) Prior to working on scaffolding, all employees must be trained in accordance with the requirements of this program.
- b) Supervisors must verify the training records of employees prior to allowing them to work on scaffolding.

# 6) Periodic Inspections

- a) Prior to every work shift, the scaffolding must be inspected and approved by a competent person.
- b) The company will keep records of these inspections.

# 7) Scaffolding Disassembly

a) Once work is completed, the scaffolding must be disassembled by appropriately trained employees.

#### **Inclement Weather**

The following special requirements apply to work on scaffolding during inclement weather conditions.

Snow / Ice Employees may not work during snowing conditions, unless the snow has stopped and all ice and snow has been removed from the work platforms.

**<u>High Winds</u>** Employees may not work during high wind situations unless special

precautions are taken. A competent person must determine that work can proceed safely by recommending the use of fall protection systems and

wind screens that are used in accordance with OSHA standards.

**<u>Lightening</u>** Employees are not allowed to perform work on scaffolding while lighting

conditions exist, and must wait a suitable amount of time after storm

passage to recommence work.