Safety Program Requirements

# **Safety Program Requirements**

#### **Castle Services of Ithaca**

Title	Program Requirements	Training Requirements
Accident Investigation and Reporting	<ul> <li>Determine who will investigate accidents, this may include supervisors, management, and employees</li> <li>Determine accident and near miss reporting procedures</li> <li>Inform employees of the work-related injuries and illness procedures and their rights to report</li> <li>Complete accident report as needed, pg. 11–13 (file name: Accident, Incident, Near Miss Investigation Report FORM)</li> <li>Note additional state requirements for: AK, HI, WA</li> </ul>	Available but not required training: • Accident investigation (Supervisor) • Accident Reporting
Back Safety in the Workplace	<ul> <li>Identify risk factors for back injury in the operations</li> <li>Repetitive or prolonged activities</li> <li>Awkward postures</li> <li>Unusual size or weight objects</li> <li>Implement any required controls to minimize or eliminate hazards</li> </ul>	Available but not required training: • Back Safety • Back Care (Medical)
Blood and Body Fluids (Incidental) Exposure	Identify risk situations	Available but not required training: • Blood and Body Fluids Safety Awareness
Compressed Gas	<ul> <li>Ensure storage areas are identified and inspected frequently</li> <li>Cylinders must be secure and prevented from tipping</li> <li>Cylinders must be labeled</li> <li>Cylinders must be stored properly</li> <li>Note additional state requirements for: MI</li> </ul>	REQUIRED TRAINING: • Compressed Gas Employees who handle cylinders. Frequency: initial, update as required
Electrical (General)	<ul> <li>Review hazards and determine level of exposures</li> <li>Ensure electrical services are contracted with licensed electricians, if only cord and plug equipment hazards are encountered by employees. Otherwise ensure that safeguards, equipment, and training is provided to employees who encounter other electrical hazards</li> <li>Ensure electrical safety requirements are being met</li> <li>Note additional state requirements for: MN</li> </ul>	Available but not required training: • Electrical Safety

# **Safety Program Requirements**

#### **Castle Services of Ithaca**

Title	Program Requirements	Training Requirements
Emergency Action, Evacuation and Fire Prevention	<ul> <li>Identify and evaluate fire hazards</li> <li>Identify and evaluate exit routes</li> <li>Provide emergency equipment as needed</li> <li>Write and communicate policies and procedures including Emergency Action and Fire Prevention Programs, pg. 12 (file name: Emergency Action Plan FORM), employees need access</li> <li>Review program at least annually</li> <li>Annual and monthly fire extinguisher inspections</li> <li>Note additional state requirements for: MI, OR</li> </ul>	REQUIRED TRAINING: 
Hand and Portable Power Tools	<ul> <li>Inspect tools before use to ensure they are in good operating condition</li> <li>Note additional state requirements for: MI, MN</li> </ul>	Available but not required training: • Hand and Portable Power Tools
Hazard Communication	<ul> <li>Determine if hazardous chemicals are present in the workplace</li> <li>Ensure a Hazardous Chemical Inventory List is maintained, pg. 7 (file name: Chemical Inventory List FORM)</li> <li>Ensure the availability of a Safety Data Sheet (SDS) for each hazardous chemical or mixture in the workplace, employees need access</li> <li>Ensure proper labeling of chemical containers</li> <li>Complete a written hazard communication program, pg. 9 - 10 (file name: Hazard Communication Written Program FORM), employees need access</li> <li>Develop a process to evaluate and document any new hazards or changes</li> <li>Ensure proper Personal protective equipment is identified</li> <li>Note additional state requirements for: AK, HI, MD, MI, MN, NC, NM, TN, VT, WA</li> </ul>	REQUIRED TRAINING: • Hazard Communication SDS content, Labeling requirements, Right to Know Frequency: initial, update as required

# Safety Program Requirements

#### **Castle Services of Ithaca**

Title	Program Requirements	Training Requirements
Personal Protective Equipment	<ul> <li>Conduct an annual documented personal protective equipment assessment to Identify risk factors for employee exposures, pg. 8 (file name: Certificate of Hazard Assessment FORM), employees need access</li> <li>Provide protective equipment, as required</li> <li>Note additional state requirements for: MI, MN, OR</li> </ul>	REQUIRED TRAINING: • Personal Protective Equipment (Equipment dependent) Users of equipment in use, storage and protection limits.) Frequency: initial, update as required
Portable Ladder Safety	<ul> <li>Ensure the appropriate type of ladder is selected based on the nature of the project</li> <li>Ensure ladder inspections are performed, pg. 7 (file name: Ladder Safety Checklist FORM)</li> <li>Ensure ladders are properly repaired and maintained in accordance with regulatory standards or are properly disposed of when they are found to be defective (and or are removed from service)</li> <li>Note additional state requirements for: CA, MI, OR</li> </ul>	REQUIRED TRAINING: • Ladder Safety Users of ladders in inspection and equipment use Frequency: initial, update as required
Safe Driving	<ul> <li>Inspect vehicles prior to operation</li> </ul>	Available but not required training: • Safe Driving

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**Title Page** 

Castle Services of Ithaca

Safety Manual



September 2018

**Table of Contents** 

#### TABLE OF CONTENTS

Safety and Health Policy Statement				
Accident Investigation and Reporting				
Back Safety in the Workplace				
Blood and Body Fluids (Incidental) Exposure				
Compressed Gas				
Electrical (General)				
Emorgonov Action Evolution and Eiro Provention				
Emergency Action, Evacuation and Fire Prevention				
Hand and Portable Power Tools				
Hand and Portable Power Tools				
Hand and Portable Power Tools Hazard Communication				

Safety and Health Policy Statement

### **Castle Services of Ithaca**

#### SAFETY AND HEALTH POLICY STATEMENT

Safety and health in our company must be a part of every operation, and is every employee's responsibility.

We maintain a safety and health program conforming to the best practices of businesses in our industry. To be successful, such a program must embody the proper attitudes toward injury and illness prevention and requires cooperation in all safety and health matters between employees at all levels. Only through a cooperative effort can an effective safety and health program be established and preserved.

The safety and health of every employee is a high priority. Management accepts responsibility for providing a safe working environment and employees are expected to take responsibility for performing work in accordance with safe standards and practices. Safety and health is only achieved through teamwork. Everyone must join together in promoting safety and health and taking every reasonable measure to assure safe working conditions in the company.

Accident Investigation and Reporting

#### PROGRAM OVERVIEW

### ACCIDENT INVESTIGATION AND REPORTING SAFETY PROGRAM

REGULATORY STANDARD: General Duty Clause

#### INTRODUCTION

The accident investigation and reporting program is a tool used to ensure notification of accidents and assist in the correction action process. Accident investigation is primarily a fact-finding procedure - the facts revealed are used to prevent recurrences of similar accidents in the future.

#### TRAINING

- Supervisors should be trained in accident investigation
- Employees should be trained on when and how to report accidents and incidents

#### ACTIVITIES

- Determine who is a part of the Accident Investigation Team, which may include supervisors, management, and employees
- Determine accident and near miss reporting procedures
- Inform employees of the work-related injuries and illness procedures and their rights to report
- OSHA Recordkeeping, forms 300 and 301 or equivalent
- Injury trending

#### FORMS

- Accident, Incident, or Near Miss Investigation Report
- Training Attendance Roster Accident Investigation
- Training Attendance Roster Accident Reporting

#### Table of Contents

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

### ACCIDENT INVESTIGATION AND REPORTING SAFETY PROGRAM

- 1. **Purpose.** Accidents and Incidents result from a failure of people, equipment, supplies, or surroundings. A successful accident investigation determines not only what happened, but also attempts to find out how and why the accident occurred. Investigations are an effort to prevent a similar or perhaps more disastrous sequence of events. The company will review and evaluate this safety program:
  - 1.1 When changes occur that prompt revision of this document (within the company or to regulatory documents)
  - 1.2 When facility operational changes occur that require a revision of this document
- **2. Scope.** This program applies to the total workplace regardless of the number of workers employed or the number of work shifts.

#### 3. Responsibilities

- 3.1 Management:
  - 3.1.1 Ensure supervisors are trained in accident investigation, as needed or required.
  - 3.1.2 Inform employees of the company's work-related injury or illness procedures and the employees' rights to report work-related injuries and illnesses.
  - 3.1.3 Provide resources, as needed or required, to implement corrective actions based on results of incident investigations.
  - 3.1.4 Review incident reports and any incident trends to establish corrective and preventive actions.
  - 3.1.5 Communicate incident information to other areas of the company where similar incidents may occur, and implement preventive actions to eliminate the potential for future incidents.
  - 3.1.6 Maintain required documentation.
  - 3.1.7 Train appropriate personnel to review and implement Job Hazard Analysis and Trend Analysis as needed.

#### 3.2 Supervisor

- 3.2.1 Provide or arrange for adequate medical treatment for any injured employee.
- 3.2.2 Promptly investigate any incidents or near miss incidents that occur.
- 3.2.3 Provide recommendations to management on corrective actions to prevent recurrence of similar incidents.

2

#### 3.3 Employees

- 3.3.1 Promptly report incidents or near misses that occur.
- 3.3.2 Report hazardous conditions to your supervisor.
- 3.3.3 Participate in incident investigations, as needed or required.

#### 4. Procedure

- 4.1 Inform employees of the company's work-related injury or illness procedures and the employees' rights to report work-related injuries and illnesses without fear of being discriminated against in any manner or fear of being discharged. Post the OSHA "It's The Law" worker rights poster.
- 4.2 Accident Investigation Team Composition. Supervisors, in conjunction with the safety officer as needed or required, are primarily responsible for the investigation of accidents and incidents. In addition, members of the safety committee or a separate Accident Investigation Team may serve as incident investigators.
- 4.3 Hazard Reporting:
  - 4.3.1 Hazards or potential hazards identified by employees will immediately be reported to management or supervision.
    - 4.3.1.1 Person reporting hazard
      - Notify department Supervisor of the hazard.
      - Initiate lock-out/tag-out, if required, on the machine.
    - 4.3.1.2 Supervisor
      - Notify all affected workers of hazard.
      - Notify Maintenance Department of hazard, if required.
      - Ensure hazard is properly marked and controlled until corrected.
- 4.4 Accident Investigation, Analysis and Reporting. Accident investigation is primarily a fact-finding procedure; the facts revealed are used to prevent recurrences of similar accidents. The focus of accident investigation will be to prevent future accidents and injuries to increase the safety and health of all our employees.
  - 4.4.1 Immediate concerns:
    - 4.4.1.1 Ensure any injured person receives proper care.

- 4.4.1.2 Ensure co-workers and personnel working with similar equipment or in similar jobs are aware of the situation. This is to ensure that procedural problems or defects in certain models of equipment do not exist.
- 4.4.1.3 Start the investigation promptly.
- 4.4.2 Accident Investigation and Reporting Form. OSHA Form 301 (or a standardized investigation report form which details specific company requirements for investigation) will be used to gather data to determine causes and corrective actions. As a minimum the form will contain the following areas of concern.
  - 4.4.2.1 Injured employee's name and any other identifier
  - 4.4.2.2 Employee's address
  - 4.4.2.3 Date and time of injury
  - 4.4.2.4 Shift and department
  - 4.4.2.5 Sex/DOB
  - 4.4.2.6 Length of service (hire date) and length of time at specific job
  - 4.4.2.7 Time shift started
  - 4.4.2.8 Physician's and hospital name (if transported)
  - 4.4.2.9 Indication if employee was hospitalized as an in-patient (i.e. overnight)
  - 4.4.2.10 Type of injury
  - 4.4.2.11 Body part or body system injured
  - 4.4.2.12 Resulting fatalities (date of death)
  - 4.4.2.13 Occupation or task being performed just prior to being injured
  - 4.4.2.14 Description and analysis of accident
  - 4.4.2.15 Indication of the object or substance that directly harmed the employee
  - 4.4.2.16 Name of person completing form, their title, phone number and the date

- 4.4.3 Additional information that is recommended on the form is:
  - 4.4.3.1 Time shift started
  - 4.4.3.2 Overtime length when injury occurred
  - 4.4.3.3 Action taken to prevent recurrence
  - 4.4.3.4 Employee's statement
  - 4.4.3.5 Witnesses' statement
  - 4.4.3.6 Employer's statement
  - 4.4.3.7 Name of person(s) reviewing form and date of review
- 4.5 Accident Investigation Review Team. A member of management responsible will review all Incident Reports for the department/section involved ensuring pertinent information is transmitted to all concerned and remedial action(s) taken.
- 4.6 Accident Investigation Final Report. The report will include but is not limited to the following:
  - 4.6.1 Investigation report form and pertinent data
  - 4.6.2 Photographs/drawings/exhibits of scene
  - 4.6.3 Narrative of accident
  - 4.6.4 Sequence of events
  - 4.6.5 Contributing information
  - 4.6.6 Findings and recommendations of review team
  - 4.6.7 Action items and completion dates
  - 4.6.8 Responsible persons
  - 4.6.9 Follow-up procedures to ensure completion
  - 4.6.10 Distribution list
- 4.7 Safety and Job Hazard Analysis. The company will identify through the use of information sources, screening and job surveys any activities that place employees at risk. After any accident or near miss, the task or job in question will have a job hazard analyses routinely performed by a qualified person(s). This analysis will help to verify that all required actions are being taken to determine if risk factors for a work position have been reduced or eliminated to the maximum extent feasible.

4.7.1 Workstation Analysis. Workstation analysis will be conducted to identify risk factors present in each job or workstation.

#### 5. Safety Information:

- 5.1 Administrative Controls. Once data has been gathered from the Incident Report, administrative controls will be used where needed to eliminate or reduce the frequency and severity of accidents and near misses. Examples of administrative controls include the following:
  - 5.1.1 Reducing the production rates and or line speeds where possible.
  - 5.1.2 Providing rest pauses to relieve fatigued muscle-tendon groups.
  - 5.1.3 Increasing the number of employees assigned to a task to alleviate severe conditions, especially in lifting heavy objects.
  - 5.1.4 Using job rotation and as a preventive measure, not as a response to physical symptoms. The principle of job rotation is to alleviate physical fatigue and stress of a particular set of muscles and tendons by rotating employees among other jobs that use different muscle-tendon groups. If rotation is utilized, the job analyses must be reviewed to ensure that the same muscle-tendon groups are not used when they are rotated.
  - 5.1.5 Providing sufficient numbers of standby/relief personnel to compensate for foreseeable upset conditions on the line (e.g., loss of workers).
  - 5.1.6 Job enlargement. Having employees perform broader functions which reduce the stress on specific muscle groups while performing individual tasks.
  - 5.1.7 Machine maintenance/guarding. Ensure regular maintenance is performed on machines and/or tools used by employees are properly guarded and that maintenance is routinely performed.
  - 5.1.8 Employee training. Ensure all employees are properly trained in the hazards associated with the job before work is performed unsupervised.
- 5.2 Medical Management. The Safety Officer or other designated person will manage the safety program. Employees of each work shift should have access to health care providers or designated alternates in order to facilitate treatment, surveillance activities, and recording of information. During an accident investigation the medical management safety program will, as a minimum, address the following issues:
  - 5.2.1 Injury and illness recordkeeping
  - 5.2.2 Early recognition of problems such as strains and muscle fatigue that could lead to accidents
  - 5.2.3 Systematic evaluation and referral

- 5.2.4 Conservative treatment after an accident
- 5.2.5 Conservative return to work after an accident
- 5.2.6 Systematic monitoring
- 5.2.7 Recordability criteria. The accident must be work related. Simply stated, unless the illness was caused solely by a non-work-related event or exposure off-premises, the case is presumed to be work related.
- 5.2.8 Occupational injuries. Injuries are caused by instantaneous events in the work environment. To keep recordkeeping determinations as simple and equitable as possible, back cases are classified as injuries even though some back conditions may be triggered by an instantaneous event and others develop as a result of repeated trauma. Any occupational injury involving any of the following circumstances is to be recorded on the OSHA-Form 300:
  - 5.2.8.1 Medical treatment resulting from significant injury/illness as diagnosed by a physician or other licensed health care professional
  - 5.2.8.2 Loss of consciousness
  - 5.2.8.3 Restriction of work or motion
  - 5.2.8.4 Contaminated needle stick or sharp exposure
  - 5.2.8.5 Work related tuberculosis infection
  - 5.2.8.6 Cases of medical removal as required under specific OSHA Regulatory Standard
  - 5.2.8.7 Transfer to another job
- 5.2.9 When an incident is recorded on the OSHA Form 300, that same incident must also be recorded on OSHA Form 301.
- 5.2.10 Periodic Workplace Walk-throughs. Supervisors, in conjunction with the Safety Officer or Health Care provider as needed or required, will conduct periodic, systematic workplace walk-throughs on a monthly basis (OSHA recommended) to remain knowledgeable about operations and work practices, to identify potential light duty jobs, and to maintain close contact with employees. Safety Officers and Health care providers also should be involved in identifying accident risk factors in the workplace as part of the Accident Investigation Team. A record will be kept documenting the date of the walk-through, area(s) visited, accident risk factors recognized, and action initiated to correct identified problems. Follow-up will be initiated and documented to ensure corrective action is taken when indicated.

#### 5.3 Accident Trend Analysis

- 5.3.1 The information gathered from incident investigations, OSHA logs and hazard reports will help to identify areas or jobs where potential accident or injury conditions could or do exist. This information may be shared with anyone in the company since employees' personal identifiers are not solicited. The analysis of medical records (e.g., sign-in logs and individual employee medical records) may reveal areas or jobs of concern, but it may also identify individual workers who require further follow-up. The information gathered while analyzing medical records will be of a confidential nature, therefore care must be exercised to protect the individual employee's privacy.
- 5.3.2 The information gained from the trend analysis may help determine the effectiveness of the various safety programs initiated to decrease accidents in our facility.
- 5.3.3 Employee survey or Job Hazard Analysis. A survey may be used to provide a standardized measure of the extent of progress in reducing work-related accidents for each area of the plant or facility. This will determine which jobs are exhibiting problems and measure progress of the overall safety program.
  - 5.3.3.1 Design of the survey. A survey of employees will be conducted to measure employee awareness of work-related accident and to report the location, frequency, and type of accidents likely to occur.
  - 5.3.3.2 Surveys normally will not include an employee's personal identifiers. This is to encourage employee participation in the survey.
  - 5.3.3.3 Frequency. Surveys will be conducted anytime deemed necessary by the Accident Investigation Team. Conducting the survey should help detect any major change in the prevalence, incidence, and/or location of reported and unreported accidents.
- 5.3.4 List of Jobs. The company will compile a list of jobs, tasks and activities. This listing should be prioritized, based on the risk factors for type of injury (s) sustained. Jobs will be analyzed to determine the physical procedures used in the performance of each job including lifting requirements, postures, handgrips, frequency of repetitive motion, and general safety requirements of the job. This information will assist health care providers in recommending assignments to light or restricted duty jobs. Supervisors should periodically review and update the lists.

#### 6. Training and Information

6.1 The purpose of accident investigation training and education is to ensure those members of the Accident Investigation Team and all of our employees are sufficiently informed about the Accident Investigation Safety Program.

- 6.1.1 Employees should be adequately trained about the company's Accident Investigation Safety Program. Proper training will allow managers, supervisors, and employees to understand the procedures to follow to report an accident, hazards associated with a job or production process, their prevention and control, and their medical consequences.
- 6.1.2 Training program design. The program will be designed and implemented by the Safety Officer, Senior Manager or other designated person. Appropriate special training will be provided for personnel responsible for administering the program.
- 6.1.3 Learning level. The safety program will be presented in language and at a level of understanding appropriate for the individuals being trained. It will provide an overview of the potential risk of illnesses and injuries, their causes and early symptoms, the means of prevention, and treatment.
- 6.1.4 Training for affected employees will consist of both general and specific job training:
  - 6.1.4.1 General Training. Employees will be given formal instruction on the hazards associated with their jobs and with their equipment. This will include information on the varieties of hazards associated with the job, what risk factors cause or contribute to them, how to recognize and report hazardous conditions, and how to prevent accident with their respective jobs. This instruction will be repeated for each employee as necessary.
  - 6.1.4.2 Job-Specific Training. New employees and reassigned workers will receive an initial orientation and hands-on training before being placed in a full-production job. Each new hire will receive a demonstration of the proper use of and procedures for all tools and equipment before assignment.
- 6.1.5 Training for Supervisors. Supervisors are responsible for ensuring that employees follow safe work practices and receive appropriate training to enable them to do this. Supervisors therefore will undergo training comparable to that of the employees. Such additional training as will enable them to recognize and correct hazardous work practices, proper accident reporting/investigation requirements, and to reinforce the company safety program.
- 6.1.6 Training for Managers. Managers will be made aware of their safety and health responsibilities and will receive sufficient training pertaining to issues at each workstation and in the production process as a whole so that they can effectively carry out their responsibilities.
- 6.1.7 Training for Engineers and Maintenance Personnel. Plant engineers and maintenance personnel will be trained in the prevention and correction of job hazards through job and workstation design and proper maintenance, both in general and as applied to the specific conditions of the facility.

6.2 Employee Training and Education. Health care providers will participate in the training and education of all employees, as needed or required. This training will be reinforced during workplace walk-throughs and the individual health surveillance appointments. All new employees will be given such education during orientation. This demonstration of concern along with the distribution of information should facilitate early recognition of accident conditions before their development, an elimination or reduction in accidents, and increased likelihood of compliance with recognition, prevention, and control.

#### 7. Definitions.

- > Accident An injury or substance exposure that results in a detrimental health effect to an individual.
- > Incident An event that results in an accident, near miss or property damage.
- Near Miss An avoided accident. An incident that could have occurred, but due to mitigating circumstances (or luck) did not occur.

## ACCIDENT, INCIDENT OR NEAR MISS INVESTIGATION REPORT

#### PART 1 IDENTIFICATION INFORMATION

Employee Name							
Date of Accident				Time:		AM PM	
Occupation				Shift			
Department				SS#:			
Employee Home Address:			Date of Birth:				
				Date of Hire			
				Gender: Male	Fema	le	
PART 2 SUPPLEMENTARY INFORMATION							
Company							
Mailing Address							
City		State			Zip		
Telephone (	)						
Accident Location	n 🛛 🛛 Same	e as establishment?	· [	On premises'	? (Ch	eck if applies)	
Location Where	Accident Occurred	(if different from ab	ove):				
Remarks:							
Was injured pers	on performing regu	ular job at time of ac	cident?	P □ Yes	🛛 No		
Describe activity	the person was do	ing just before they	were in	jured:			
Length of Service: With Employer On this job							
Time shift started AM PM Overtime?  Yes  No							
Name and addres	ss of physician:						
City	Zip						
City       State       Zip         Employee treated in an emergency room?       Yes       No.       Employee hospitalized overnight?       Yes       No						_ No	
If hospitalized, na	ame and address o	f hospital:					
City		State			Zip		
Fatality?  Yes  No				If Yes, date of death			
PART 3 ACCIDENT TREE							
NATURE OF INJ	URY OR ILLNESS	6:	PAF	RT OF BODY AF	FECTED:		
		-					
Operation Location:	Operation Task:	Employee Task:		oloyee Body ition/Activity	Agency	Preceding Situation or Event	Typ e of Acci den t

PART 4 DESCRIPTION AND ANALYSIS					
Fully describe accident:					
What factors led to the accide	nt (from Part 3	3/Tree)?			
MACHINERY/EQUIPMENT IN	IVOLVED				
Manufacturer					Equip. age
Serial No.			Model		
Function					
Location					
Has machine/equipment been	modified?	□ Yes □	No		If so, when?
Was it guarded?   Ves	🗆 No				
If Yes, describe guarding and	how it functior	ns to provide ele	ement of safet	y desired:	
Was guarding properly:	Constructed	1?	□ Yes	D No	
	Installed?		□ Yes	🗆 No	
	Adjusted?		🛛 Yes	🛛 No	
If No to any of above, explain:					
Was there any mechanical failure?  Yes No If yes, explain:					
If construction related, date of	contract:				
Is firm					
Name of other contractors					
List any weather conditions that contributed to the incident:					
TRAINING					
Did employee receive specific □ Yes □ No	training or ins	structions relatin	g to safety an	d health on the	job being performed?
Туре:					
Instructed by:					
When instructed:			Length of tra	ining:	

Did employee use any protective equipment for the job or task performed?       Yes       No         Type:					
Did equipment fail?  If yes    If so, describe:      CORRECTIVE ACTIONS:					
If so, describe: CORRECTIVE ACTIONS:					
CORRECTIVE ACTIONS:					
Were any corrective or preventive actions put into place due to the incident? $\Box$ Ves $\Box$ No					
If so, list them:					
Action Taken Expected Result Expected Completion Date					
Were corrective actions followed through to completion?  Yes No If so, list results and dates:					
Action Taken Expected Result Expected Completion Date					
STATEMENTS CONCERNING ACCIDENT					
EMPLOYEE STATEMENT CONCERNING ACCIDENT					
Name Title Date					
SUPERVISOR/EMPLOYER'S STATEMENT					
Name Title Date					
WITNESS STATEMENT					
WITNESS STATEMENT					
Name Title Date					
SAFETY COMMITTEE COMMENTS					
Name Title Date					
ATTACH ADDITIONAL COMMENTS, REPORTS AND PHOTOS ON NEXT PAGE					

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## TRAINING ATTENDANCE ROSTER ACCIDENT INVESTIGATION

Accident Investigation Training for Supervisors Includes:

- Getting the facts
- Investigation procedures
- Interviews and statements
- Photography and Diagrams
- Corrective Actions

INSTRUCTOR:	<u>DATE:</u>	LOCATION:		
NAME (Please Print) FIRST - MI - LAST	SIGNATURE			
By signing below, I attest that I have attended the safety training for the topic indicated, and will abide b the safety information, procedures, rules, regulations and/or company policy as presented and instructed.				

Name of Interpreter, if utilized: \_\_\_\_

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## TRAINING ATTENDANCE ROSTER ACCIDENT REPORTING

Accident Reporting Training for Employees Includes:

- Why do accidents happen
- What to report and when
- When to call for help
- Emergency Contact information

INSTRUCTOR:	<u>DATE:</u>	LOCATION:	
NAME (Please Print) FIRST - MI - LAST	SIGNATURE		
By signing below, I attest that I have a by the safety information, procedur			

Name of Interpreter, if utilized:

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Back Safety in the Workplace

#### PROGRAM OVERVIEW

# BACK SAFETY IN THE WORKPLACE PROGRAM

REGULATORY STANDARD: OSHA - 29 CFR 1903. (General Duty Clause) OSHA - 29 CFR 1910.151 (Medical Services) Best Practices - Ergonomics

#### INTRODUCTION

Outlines the methods for identifying back disorder risk factors and for implementing protective measures to prevent back injuries.

#### TRAINING

Recommended for most workplaces

#### ACTIVITIES

- Identify risk factors for back injury in the operations
  - Repetitive or prolonged activities
  - Awkward postures
  - Unusual size or weight objects
- Implement any required controls to minimize or eliminate hazards.

#### FORMS

• Training Attendance Roster, as needed

#### **Table of Contents**

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

## BACK SAFETY IN THE WORKPLACE PROGRAM

- 1. **Purpose.** This safety program is designed to establish clear company goals and objectives with regard to back safety and will be communicated to all required personnel. The company will review and evaluate this safety program:
  - 1.1 When changes occur to 29 CFR that prompt revision of this document
  - 1.2 When facility operational changes occur that require a revision of this document
  - 1.3 When there is an accident or close-call that relates to this area of safety
  - 1.4 Review the safety program any time these procedures fail
- 2. Scope. This program applies to the total workplace regardless of the number of workers employed or the number of work shifts

#### 3. Responsibilities

- 3.1.1 Management and Supervisor:
  - 3.1.1.1 Evaluate the workplace for potential back safety issues
  - 3.1.1.2 Implement controls and awareness training to prevent back injuries
  - 3.1.1.3 Review this program and needed.
- 3.1.2 Employees:
  - 3.1.2.1 Follow workplace rules and procedures
  - 3.1.2.2 Immediately report injuries or symptoms of back disorders

#### 4. Procedure

- 4.1 <u>Back Disorder Risk Factors</u>. Identification of hazards will be based on risk factors such as conditions of a job process, workstation, or work methods that contribute to the risk of developing problems associated with back disorders. Not all of these risk factors will be present in every job containing stressors nor is the existence of one of these factors necessarily sufficient to cause a back injury. Supervisors will use the following known risk factors to isolate and report suspected problem areas:
  - 4.1.1 Repetitive and/or prolonged activities
  - 4.1.2 Bad body mechanics such as:
    - 4.1.2.1 Continued bending over at the waist
    - 4.1.2.2 Continued lifting from below the knuckles

- 4.1.2.3 Continued lifting above the shoulders
- 4.1.2.4 Twisting at the waist
- 4.1.2.5 Twisting at the waist while lifting
- 4.1.2.6 Lifting or moving objects of excessive weight
- 4.1.2.7 Lifting or moving object of asymmetric size
- 4.1.2.8 Prolonged sitting with poor posture
- 4.1.2.9 Lack of adjustable :
  - 4.1.2.9.1 Chairs
  - 4.1.2.9.2 Footrests
  - 4.1.2.9.3 Body supports
  - 4.1.2.9.4 Work surfaces at workstations
- 4.1.2.10 Poor grips on handles
- 4.1.2.11 Slippery footing
- 4.1.2.12 Frequency of movement
- 4.1.2.13 Duration and pace
- 4.1.2.14 Stability of load
- 4.1.2.15 Coupling of load
- 4.1.2.16 Type of grip
- 4.1.2.17 Reach distances
- 4.1.2.18 Work height
- 4.2 <u>Safe Lifting Techniques</u>. First, use a pushcart or other material-handling device! Second, ask a co-worker for help if no device is available! If you must lift alone here are some tips. Before starting to lift or carry anything, check your entire walkway to make sure your footing will be solid. Your shoes should give you good balance, support and traction. Keep loads as close to your body as possible. The following situations show basic lifting techniques to avoid injury:
  - 4.2.1 Lifting or lowering from a high place
    - 4.2.1.1 Stand on a platform instead of a ladder

- 4.2.1.2 Lift the load in smaller pieces, if possible
- 4.2.1.3 Slide the load as close to yourself as possible before lifting
- 4.2.1.4 Grip firmly and slide it down
- 4.2.1.5 Get help when you need it to avoid injury
- 4.2.2 Lifting from hard-to-get-at places
  - 4.2.2.1 Get as close to the load as possible
  - 4.2.2.2 Keep back straight, stomach muscles tight
  - 4.2.2.3 Push buttocks out behind you
  - 4.2.2.4 Bend your knees
  - 4.2.2.5 Use leg, stomach, and buttock muscles to lift -- not your back
- 4.2.3 Lifting drums, barrels, and cylinders
  - 4.2.3.1 Use mechanical assists
  - 4.2.3.2 Always be aware that loads can shift
  - 4.2.3.3 Get help if load is too heavy
- 4.2.4 Awkward objects
  - 4.2.4.1 Bend your knees with feet spread
  - 4.2.4.2 Grip the top outside and bottom inside corners
  - 4.2.4.3 Use your legs to lift, keeping back straight
- 4.2.5 Shoveling
  - 4.2.5.1 Make sure your grip and balance are solid
  - 4.2.5.2 Tighten your abdomen as you lift
  - 4.2.5.3 Keep the shovel close to your body
  - 4.2.5.4 Use the strength of your thigh muscles to bring you to an upright position
  - 4.2.5.5 Increase your leverage by keeping your bottom hand low and toward the blade

- 4.2.6 General safety tips
  - 4.2.6.1 Don't lift objects over your head
  - 4.2.6.2 Don't twist your body when lifting or setting an object down
  - 4.2.6.3 Don't reach over an obstacle to lift a load
  - 4.2.6.4 Pace yourself to avoid fatigue

#### 5. Safety Information.

- 5.1 <u>Job Hazard Analysis and Work Station Analysis Surveys</u>. Job hazard analysis surveys will be routinely performed by a qualified person for jobs that put workers at risk. This analysis survey will help to verify risk factors and to determine if risk factors for a work position have been reduced or eliminated to the extent feasible.
  - 5.1.1 Upper extremities. For upper extremities three (3) measurements of repetitiveness will be reviewed:
    - 5.1.1.1 Total hand manipulations per cycle.
    - 5.1.1.2 The cycle time.
    - 5.1.1.3 The total manipulations or cycles per work shift.
  - 5.1.2 Force measurements. Force measurements will be noted as an estimated average effort and a peak force (unless quantitative measurements are feasible). They will be recorded as "light," "moderate," or "heavy".
  - 5.1.3 Tools. Tools will be checked for excessive vibration and weight. (The NIOSH criteria document on hand/arm vibration should be consulted.) The tools, personal protective equipment, and dimensions and adjustability of the workstation will be noted for each job hazard analysis.
  - 5.1.4 Postures. Hand, arm, and shoulder postures and movements will be assessed for levels of risk.
  - 5.1.5 Lifting Hazards. Workstations having tasks requiring manual materials handling will have the maximum weight-lifting values calculated. (The NIOSH *Work Practices Guide for Manual Lifting* should be used for basic calculations.)
  - 5.1.6 Videotape Method. The use of videotape, where feasible, will be used as a method for analysis of the work process. Slow-motion videotape or equivalent visual records of workers performing their routine job tasks will be used where practical to determine the demands of the task on the worker and how each worker actually performs each task. A task analysis log/form will be used to break down the job into components that can be individually analyzed.

- 5.2 <u>Hazard Prevention and Control</u>. Company management understands that engineering solutions, where feasible, are the preferred method of control for ergonomic hazards. The focus of this safety program is to make the job fit the person, not to make the person fit the job. This is accomplished by redesigning the workstation, work methods, or tools to reduce the demands of the job. Such as high force, repetitive motion, and awkward postures. This safety program will whenever possible research into currently available controls and technology. The following examples of engineering controls will be used as models for workstation design and upgrade.
  - 5.2.1 <u>Workstation Design</u>. Workstations when initially constructed or when redesigned will be adjustable in order to accommodate the person who actually works at a given workstation. It is not adequate to design for the "average" or typical worker. Workstations should be easily adjustable and either designed or selected to fit a specific task so that they are comfortable for the workers using them. The workspace should be large enough to allow for the full range of required movements especially where hand held tools are used. Examples include:
    - 5.2.1.1 Adjustable fixtures on work tables so that the position of the work can be easily manipulated.
    - 5.2.1.2 Workstations and delivery bins that can accommodate the heights and reach limitations of various-sized workers.
    - 5.2.1.3 Work platforms that move up and down for various operations.
    - 5.2.1.4 Mechanical or powered assists to eliminate the use of extreme force.
    - 5.2.1.5 Suspension of heavy tools.
    - 5.2.1.6 The use of diverging conveyors off of main lines so that certain activities can be performed at slower rates.
    - 5.2.1.7 Floor mats designed to reduce trauma to the legs and back.
  - 5.2.2 <u>Design of Work Methods</u>. Traditional work method analysis considers static postures and repetition rates. This will be supplemented by addressing the force levels and the hand and arm postures involved. The tasks will be altered where possible to reduce these and the other stresses. Examples of methods for the reduction of extreme and awkward postures include the following:
    - 5.2.2.1 Enabling the worker to perform the task with two hands instead of one.
    - 5.2.2.2 Conforming to the NIOSH *Work Practices Guide for Manual Lifting*.

- 5.2.3 <u>Excessive force</u>. Excessive force in any operation can result in both long-term problems for the worker and increased accident rates. Ways to reduce excessive force will be continually emphasized by first line supervisors and employees. Examples of methods to reduce excessive force include:
  - 5.2.3.1 The use of automation devices.
  - 5.2.3.2 The use of mechanical devices to aid in removing scrap from work areas.
  - 5.2.3.3 Substitution of power tools where manual tools are now in use.
  - 5.2.3.4 The use of articulated arms and counter balances suspended by overhead racks to reduce the force needed to operate and control power tools.
- 5.2.4 <u>Repetitive motion</u>. All efforts to reduce repetitive motion will be pursued. Examples of methods to reduce highly repetitive movements include:
  - 5.2.4.1 Increasing the number of workers performing a task.
  - 5.2.4.2 Lessening repetition by combining jobs with very short cycle times, thereby increasing cycle time. (Sometimes referred to as "job enlargement.")
  - 5.2.4.3 Using automation where appropriate.
  - 5.2.4.4 Designing or altering jobs to allow self-pacing, when feasible.
  - 5.2.4.5 Designing or altering jobs to allow sufficient rest pauses.
- 5.3 <u>Administrative Controls</u>. Administrative controls should be used to reduce the duration, frequency, and severity of exposures to ergonomic stressors that can cause back injury. Examples of administrative controls include the following:
  - 5.3.1 Reducing the total number of repetitions per employee by such means as decreasing production rates and limiting overtime work.
  - 5.3.2 Providing rest pauses to relieve fatigued muscle-tendon groups. The length of time needed depends on the task's overall effort and total cycle time.
  - 5.3.3 Increasing the number of employees assigned to a task to alleviate severe conditions, especially in lifting heavy objects.
  - 5.3.4 Using job rotation, with caution and as a preventive measure, not as a response to symptoms. The principle of job rotation is to alleviate physical fatigue and stress of a particular set of muscles and tendons by rotating employees among other jobs that use different muscle-tendon groups. If rotation is utilized, the job analyses must be reviewed to ensure that the same muscle-tendon groups are not used when they are rotated.

- 5.3.5 Providing sufficient numbers of standby/relief personnel to compensate for foreseeable upset conditions on the line (e.g., loss of workers).
- 5.3.6 Job enlargement. Having employees perform broader functions which reduce the stress on specific muscle groups while performing individual tasks.

#### 6. Training and Information

- 6.1 <u>Types of training</u>. Supervisors will determine whether training required for specific jobs will be conducted in a classroom or on-the-job. The degree of training provided shall be determined by the complexity of the job and the associated hazards.
  - 6.1.1 <u>Initial Training</u>. Prior to job assignment the company shall provide training to ensure that the hazards associated with pre-designated job skills are understood by employees. Also the knowledge and skills required for the safe application and usage of work place procedures and equipment is acquired by all employees. The training shall include the following:
    - 6.1.1.1 Each affected employee shall receive training in the recognition of back injury hazards involved with a particular job, and the methods and means necessary for safe work.
    - 6.1.1.2 <u>Training course content</u>. All new and current workers, who work in areas where there is reasonable likelihood of back injury, will be kept informed through continuing education programs. Initial and refresher training will, as a minimum, cover the following:
      - 6.1.1.2.1 Back hazards associated with the job.
      - 6.1.1.2.2 Lifting techniques.
      - 6.1.1.2.3 Potential health effects of back injury.
      - 6.1.1.2.4 Back injury precautions.
      - 6.1.1.2.5 Proper use of protective clothing and equipment.
      - 6.1.1.2.6 Use of engineering controls.
    - 6.1.1.3 <u>Responsibility.</u> Employees are responsible for following proper work practices and control procedures to help protect their health and provide for the safety of themselves and fellow employees, including instructions to immediately report to the Supervisor any significant back injury.

- 6.1.2 <u>Refresher Training</u>. Scheduled refresher training will be conducted on an as needed basis.
  - 6.1.2.1 Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in equipment or processes that present a new hazard, or when their work takes them into other hazard areas.
  - 6.1.2.2 Additional retraining shall also be conducted whenever a periodic inspection reveals, or when there is reason to believe that there are deviations from or inadequacies in the employee's knowledge of known hazards and use of equipment or procedures.
  - 6.1.2.3 The retraining shall reestablish employee proficiency and introduce new equipment, new lifting procedures or revised control methods and procedures.
- 6.1.3 <u>Verification</u>. The company shall verify that employee training has been accomplished and is being kept up to date. The verification shall contain a synopsis of the training conducted, each employee's name, and dates of training.
- 6.2 <u>New Employee Acclimatization Period</u>. Supervisors will ensure that new or transferred employees are allowed an appropriate acclimatization period. New and returning employees will be gradually integrated into a full work schedule as appropriate for specific jobs and individuals. Employees will be assigned to an experienced trainer for job training and evaluation during this period. Employees reassigned to new jobs should also have an acclimatization period.

### 7. Definitions.

> None at this time

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# TRAINING ATTENDANCE ROSTER BACK SAFETY

### Back Safety Traiing Includes:

- Types of Injuries and Causes
- Risk Assessment and Planning
- Safe Lifting Techniques
- Special Lifting Hazards

INSTRUCTOR:	<u>DATE:</u>	LOCATION:
NAME (Please Print) FIRST - MI - LAST		IGNATURE
By signing below, I attest that I have attended the safety training for the topic indicated, and will abide by the safety information, procedures, rules, regulations and/or company policy as presented and instructed.		

Name of Interpreter, if utilized:

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Blood and Bodily Fluids

### PROGRAM OVERVIEW

# **BLOOD AND BODILY FLUID INCIDENTAL EXPOSURE PROGRAM**

**REGULATORY STANDARD:** OSHA - 29 CFR 1910.1030 (LIMITED REFERENCES)

#### INTRODUCTION

Exposure to another person's blood or bodily fluids can potentially place your health at risk. Contracting diseases such as the Human Immunodeficiency (HIV) and Hepatitis B (HBV) viruses is unlikely, but possible, in the performance of emergency first-aid, housekeeping and janitorial staff duties, and similar tasks. This program outlines the protective measures that can be taken during potential exposure situations and training that can be provided to reduce or eliminate these types of exposures.

#### TRAINING

Recommended for employees who may encounter human blood or body fluids but such exposure is not a part of their normal job duties.

#### ACTIVITIES

- Identify risk situations
- Train employees, as appropriate

#### FORMS

• Training Attendance Roster, as needed

#### **Table of Contents**

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

## Incidental Blood and Bodily Fluid Exposure Program

- 1. **Purpose.** Where employees can be exposed (through injury or illness in the workplace) to the blood and/or bodily fluid of another person, information and training in the potential health effects of such exposures may be provided. This procedure assists in compliance with implementing this type of "incidental" Bloodborne Pathogen Exposure program and references Federal Regulation 29CFR1910.1030.
- **2. Scope.** Applies to all locations within company buildings or facilities where incidents involving exposures to a person's blood or bodily fluids may occur.

#### 3. Responsibilities

- 3.1 Management and Supervisor:
  - 3.1.1 Determine where exposures are present
  - 3.1.2 Ensure employees are trained, based on their level of exposure to blood or Bloodborne pathogens
  - 3.1.3 Implement bio-safety controls, where required
  - 3.1.4 Maintain appropriate documentation (including exposure incident reports and post-exposure follow up records)
- 3.2 Employees:
  - 3.2.1 Follow established written procedures
  - 3.2.2 Attend training, as needed or required

#### 4. Procedure

- 4.1 Determine where exposures or potential exposures exist
- 4.2 Provide controls to eliminate or reduce exposures
- 4.3 Document exposures through accident/incident reports or exposure incident reports and maintain records for 5 years.

#### 5. Safety Information

- 5.1 Document and maintain written processes and procedures in work areas where exposure could potentially occur. This includes:
  - 5.1.1 Any first aid procedures or supplies maintained at the company
  - 5.1.2 PPE (Personal Protective Equipment) that may be used or required
  - 5.1.3 Training provided, as needed

- 5.2 Assure a system is in place for a medical evaluation for any exposed employee who has had contact with the blood or bodily fluids of another person.
- 5.3 Assure incident and/or exposure records are maintained for 5 years for each employee who has an exposure event. Record all exposure incident cases on the OSHA 300 log, if your company is required to maintain such records
- 5.4 These records or reports should include:
  - 5.4.1 Name of the exposed employee
  - 5.4.2 Information (if known) on if the exposed employee has had a Hepatitis B Vaccination previous to the exposure.
  - 5.4.3 Circumstances of the exposure and any PPE used
  - 5.4.3.1 Written opinion of the healthcare provider (PLHCP Statement) and copies of any other documentation provided to the healthcare professional responsible for post-exposure follow up.

#### 6. Training and Information

- 6.1 Training for employees is voluntary and not required.
- 6.2 Training includes:
  - 6.2.1 Information on how bloodborne pathogens and diseases can be contracted by employees during their work.
  - 6.2.2 How exposures are prevented (controls used, PPE, etc.)
  - 6.2.3 Whom to contact at the company and what to do (and what to expect) if an employee has an exposure.
  - 6.2.4 Training records should be maintained for at least 3 years.

#### 7. Definitions

- Biohazards/Bloodborne Pathogens Infectious agents (human pathogens), materials from human sources or primates that may contain pathogens, and organism-produced toxins, venom, allergens, etc. that causes disease in humans.
- Contact or Exposure Blood or body fluids must have the potential to be absorbed into the blood stream (such as through a break in the skin (cut or other skin opening) or through the eyes, nose, mouth to be considered contact. Exposure is considered to be any contact with another person's blood or bodily fluids (saliva, vomit, urine, feces, etc).

- Exposure Control Program A written program that outlines the exposures that are present (or potentially present) in the workplace and the steps taken to eliminate or control those exposures.
- OPIM Other Potentially Infectious Materials, such as contaminated waste, tissue samples, Human body fluids, including: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluid that is visibly contaminated with blood, and all body fluid that is difficult or impossible to differentiate between body fluids.
- > Potentially Exposed An exposure that can reasonably occur at some time.
- Sharps a non-needle sharp or needle device used for withdrawing blood or body fluids, accessing a vein or artery or administrating medication or other fluids.
- Universal Precautions An approach to infection control. According to the concept of universal precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

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<ul> <li>Training Content:</li> <li>What is a BBP</li> <li>Types of diseases</li> <li>Precautions and PPE</li> <li>Spill Cleanup</li> </ul>	Instructor Name:	Date of Training:
<ul> <li>Spill Cleanup</li> <li>Waste Disposal</li> <li>Exposure Incident Process</li> </ul>		
NAME (Please Print) FIRST - MI - LAST	SIGNATURE	JOB TITLE
By signing below, I attest that I hav	re attended the safety training for the topic indicated, and will abide by regulations and/or company policy as presented and instructed.	By signing below, I attest that I have attended the safety training for the topic indicated, and will abide by the safety information, procedures, rules,
Name of Interp	Name of Interpreter, if utilized:	

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**Compressed Gas** 

### PROGRAM OVERVIEW

# **COMPRESSED GAS SAFETY PROGRAM**

REGULATORY STANDARD: OSHA - 29 CFR 1910.101 - 105 CGA - G-1, 4, 4.1, 5, 6, 8.1, P-1, 2, V-1, SB-2

#### INTRODUCTION

Some compressed gases are flammable, toxic, or both and all are under pressure. Cylinders must be used, handled, and stored with extreme care. An exploding cylinder can have the same destructive effect as a bomb. The hazards of compressed gases must be evaluated, safety procedures implemented, and proper hazard information must be communicated to all affected workers.

#### TRAINING

Required for employees who move, handle or use compressed gas cylinders.

#### ACTIVITIES

- Ensure storage areas are identified and inspected frequently.
- Cylinders must be secure and prevented from tipping.
- Cylinders must be labeled with the type of gas, hazard warnings, and indication if the cylinder is empty or full. All empty cylinders should be grouped together.
- Full oxygen cylinders must be located 20 feet from, or have a half hour rated fire wall separating them from, any flammable gases while in storage.

#### FORMS

• Training Attendance Roster

#### **Table of Contents**

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

- 1. **Purpose.** Effective implementation for job safety and health of our employees requires a written safety program fully endorsed and advocated by the highest level of management within the company. This safety program is designed to establish clear company goals and objectives for the use and handling of compressed gases, and will be communicated to all required personnel. The company will review and evaluate this safety program:
  - 1.1 When changes occur to the regulatory standard governing this safety program that prompt revision of this document
  - 1.2 When facility operational changes occur that require a revision of this document
- 2. Scope. It encompasses the total workplace regardless of the number of workers employed or the number of work shifts. This program applies to any compressed gas cylinder larger than 1 liter in size.

#### 3. Responsibilities

- 3.1 Management and Supervisor
  - 3.1.1 Assure safe handling procedures are in place and followed
  - 3.1.2 Ensure containers are labeled, color coded, inspected and that all components are functioning normally. Leaking or defective containers must be immediately removed from service.
  - 3.1.3 Ensure defective containers are returned to the supplier as soon as possible.
  - 3.1.4 Provide the appropriate tools and equipment to handle, use, store and transport cylinders safely.
- 3.2 Employees
  - 3.2.1 Inspect gas cylinders before use to assure that the proper gas is utilized and that the cylinders are not defective.
  - 3.2.2 Notify management or supervisor immediately if a cylinder or a component is defective.

#### 4. Procedure

- 4.1 Safe Handling Procedures for Compressed Gases
  - 4.1.1 Filling. Containers will not be filled except by the supplier of the cylinder or with the supplier's consent. Where filling is authorized it will be accomplished in accordance with DOT, OSHA, and CGA Regulatory Standards.
  - 4.1.2 Content identification
    - 4.1.2.1 Warning labels. All employees, whose work operations are or may be in an area where compressed gas may be utilized, shall be instructed in the recognition and use of warning labels. Warning labels are essentially warning devices and must be legible at all times. The following will be addressed as a minimum:
      - 4.1.2.1.1 Removal. When a warning label is attached to a compressed gas cylinder, it is not to be removed without authorization of the person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated.
      - 4.1.2.1.2 Legibility. In order to be effective, warning labels must be legible and understandable by all authorized employees, affected employees, and other employees whose work operations are or may be in the area. Non-legible or missing labels will be reported to the Safety Officer immediately.
      - 4.1.2.1.3 Durability. Labels and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
      - 4.1.2.1.4 Labels may evoke a false sense of security, and their meaning needs to be understood as part of the overall Compressed Gas Safety Program.
      - 4.1.2.1.5 Labels must be securely attached to cylinders so that they cannot be inadvertently or accidentally detached during use.
    - 4.1.2.2 Labeling. Each container will bear the proper label for the compressed gas contained.

#### 4.1.2.3 Maintenance

- 4.1.2.3.1 Authorization. Containers and their appurtenances used by the company will be maintained only by the container supplier or authorized representative. Any employee who is not sure of the type of maintenance allowed on containers should contact the Safety Officer for further information.
- 4.1.2.3.2 Changing prescribed markings. The prescribed markings, supplier/owner markings or symbols stamped into containers will not be removed or changed unless in accordance with pertinent regulatory standards.
- 4.1.2.3.3 Changing content markings. No employee will deface or remove any markings, labels, decals, tags or stencil marks applied by our supplier and used for the identification of content. Like markings may be affixed if the original becomes illegible or detached.
- 4.1.2.3.4 Pressure relief devices. No employee will change, modify, tamper with, obstruct, or repair pressure relief devices in container valves or in containers.
- 4.1.2.4 Painting.
  - 4.1.2.4.1 Containers will not be painted. If a container shows signs of corrosion it will be removed from service and returned to the supplier.
  - 4.1.2.4.2 Cylinder color. All employees should be aware that containers may only be painted by the supplier for the purpose of recognition and segregation. Should the company change suppliers' of compressed gas the color codes could also change, always double-check to ensure you have the correct cylinder for the intended use. Never rely solely on the cylinder color for identification.
- 4.1.2.5 Contamination or improper contents. Any container found suspected to be contaminated or having its contents suspect will be immediately removed from service and reported to the Safety Officer. The supplier will be immediately notified.

- 4.1.2.6 Leaking or defective containers.
  - 4.1.2.6.1 Leaking Containers. Supervisors will ensure all employees under their control understand the following. Any employee discovering a leaking container should attempt to take the following actions:
    - 4.1.2.6.1.1Notify workers in the immediate area of the leak.
    - 4.1.2.6.1.2If the container could contain hazardous material (or if you're not sure) evacuate personnel in the area to fresh air (preferably up-wind or side-wind relative to the source).
    - 4.1.2.6.1.3Report the following as soon as possible to the Safety Officer.
      - 4.1.2.6.1.3.1 Contents.
      - 4.1.2.6.1.3.2 Location.
      - 4.1.2.6.1.3.3 Number of employees in immediate area.
      - 4.1.2.6.1.3.4 Circumstances of the release.
      - 4.1.2.6.1.3.5 Condition of container.
      - 4.1.2.6.1.3.6 Other pertinent information as required.
  - 4.1.2.6.2 Defective Containers. Supervisors will ensure all employees under their control understand the following. Any employee discovering a defective or corroded container should attempt to take the following actions:
    - 4.1.2.6.2.1Notify the Supervisor of the department where the container was discovered.
    - 4.1.2.6.2.2If the container could contain hazardous material (if you're not sure), evacuate personnel in the area to fresh air (preferably up-wind or side-wind relative to the source).

4.1.2.6.2.3Report the following as soon as possible to the Safety Officer:

4.1.2.6.2.3.1	Contents	
4.1.2.6.2.3.2	Location	
	Number of employees in mediate area	
4.1.2.6.2.3.4	Circumstances	
4.1.2.6.2.3.5	Condition of container	
4.1.2.6.2.3.6 as	Other pertinent information as required	

- 4.1.2.7 Container usage requirements
  - 4.1.2.7.1 Content Identification. Where company employees are responsible to handle and connect the container for use, the operation will not proceed unless the contents can be verified by legible markings and labels.
  - 4.1.2.7.2 Container caps, valve outlet caps, and plugs.
    - 4.1.2.7.2.1Container caps. Where removable caps are provided by the gas supplier for valve protection, company employees shall keep such caps on containers at all times except when containers are connected to dispensing equipment.
    - 4.1.2.7.2.2Valve outlet caps and plugs. Where valve outlet caps and plugs are provided by the supplier, employees will keep such devices on the containers and valve outlets at all times except when containers are connected to dispensing equipment.
  - 4.1.2.7.3 Misuse. No container will be used for anything other than its intended purpose. Containers will not be used as rollers, supports or for any purpose other than to contain the content as received. No employee will allow an unsafe condition such as this to occur without notifying his or her Supervisor.

- 4.1.2.7.4 Containers not in use (configuration). When containers are not being used the valves will remain closed at all times except when operational constraints apply.
- 4.1.2.8 Movement of compressed gas containers
  - 4.1.2.8.1 Trucks. Containers will not be rolled, dragged, or slid. A suitable hand truck, fork truck, roll platform, or similar device will be used to move containers.
  - 4.1.2.8.2 Rough handling. Containers will not be dropped or permitted to strike violently against each other or other surfaces.
  - 4.1.2.8.3 Lifting requirements.
    - 4.1.2.8.3.1Container caps. Container caps will not be used for lifting containers except for the use of hand trucks which grip the container cap for lifting on to the hand truck. In any case the container will not be lifted higher than six inches above the operating surface.
    - 4.1.2.8.3.2Magnetic lifting devices. Magnetic lifting devices are prohibited from use with compressed gas containers.
    - 4.1.2.8.3.3Ropes, chains, or slings. Ropes, chains, or slings are prohibited from use with compressed gas containers unless lugs or lifting attachments are provided by the manufacturer.
    - 4.1.2.8.3.4Cradles or platforms. Where approved lifting attachments have been provided by the manufacturer, cradles or platforms are authorized for use.
- 4.1.2.9 Container storage requirements
  - 4.1.2.9.1 Posting requirements.
    - 4.1.2.9.1.1No Smoking. No Smoking signs will be posted in the storage area.
    - 4.1.2.9.1.2Type gas. Signs designating the type gas stored in the area will be posted.

- 4.1.2.9.2 Grouping requirements. Where different types of gases are stored in the same general area the following apply.
  - 4.1.2.9.2.1Like gases. Gases will be stored with like gases and segregated from dissimilar gases.
  - 4.1.2.9.2.2Full and empty containers. Full and empty containers will not be intermingled. Separate storage areas will be delineated for each.
- 4.1.2.9.3 Stock rotation. Stock will be rotated so that the oldest material will be the first to be used. The storage layout will be such that old stock can be removed first with a minimum handling of other containers.
- 4.1.2.9.4 Storage rooms. Storage rooms used by the company will be well ventilated and dry. Room temperature will not exceed 125 degrees F. Storage in subsurface location will be avoided.
- 4.1.2.9.5 Separation from combustibles. Containers will not be stored near readily ignitable substances such as gasoline or waste, or near combustibles in bulk, including oil.
- 4.1.2.9.6 External corrosion requirements. Containers will not be exposed to continuous dampness and should not be stored near salt or other corrosive chemicals or fumes. Corrosion may damage the containers and may cause the valve protection caps to stick.
- 4.1.2.9.7 Mechanical damage requirements. Containers shall be protected from any object that will produce a harmful cut or other abrasion in the surface of the metal. Containers will not be stored near elevators, gangways, and unprotected platform edges or in locations where heavy moving objects may strike or fall on them.
- 4.1.2.9.8 Storage and use requirements.
  - 4.1.2.9.8.1Store upright. All compressed gas containers in service or in storage will be stored standing upright where they are not likely to be knocked over.

- 4.1.2.9.8.2Restrain. All compressed gas containers in use will be restrained above the midpoint to prevent accidental fall-over of the container.
  - 4.1.2.9.8.2.1 Gas containers with a water volume up to 305 cu. in.(5.0 L) may be stored in a horizontal position.
- 4.1.2.9.8.3Container valve end up. Liquefied gas containers except those designed for use in a horizontal position on tow motors, etc., will be stored and used valve end up. Acetylene containers will be stored and used valve end up. Storage of acetylene containers valve end up will minimize the possibility of solvent being discharged. Note: Valve end up includes conditions where the container axis is inclined as much as 45 degrees from the vertical.
- 4.1.2.9.9 Outdoor storage. Containers may be stored in the open, but will be stored on a clean dry surface to prevent corrosion to the bottom of the container.
  - 4.1.2.9.9.1Sunlight. Containers may be stored in direct sunlight, except in localities where extreme temperatures prevail (above 125 degrees F.). If our supplier recommends storage in the shade for a particular gas, this recommendation will be observed.
  - 4.1.2.9.9.2Public area. Containers used or stored in public areas will be protected to prevent tampering.
- 4.1.2.9.10 Interference with egress. Containers when stored inside will not be located near exits, stairways, or in areas normally used or intended for the safe exit of employees.
- 4.1.2.10 Connecting containers and withdrawing content
  - 4.1.2.10.1 Trained personnel. Compressed gases will be handled and used only by properly trained employees. Employees must have had initial training in order to handle and use compressed gases.

- 4.1.2.10.2 Content identification. Employees will verify that a label exists and review the label before beginning operations with a compressed gas. Unmarked containers will not be used. Such containers will be reported to the Safety Officer. The container color will never be relied on for identification of a container.
- 4.1.2.10.3 Container caps. Caps will be retained and not removed until the container is placed in service.
- 4.1.2.10.4 Secure containers. The company will ensure that compressed gases will be secured above the midpoint to prevent them from being knocked over.
- 4.1.2.10.5 Pressure regulator. A suitable pressure regulating device will be used where gas is admitted to a system of lower pressure rating than the supply pressure, and where, due to the gas capacity of the supply source, the system rating may be exceeded.
- 4.1.2.10.6 Pressure relief device. A suitable pressure relief device will be used to protect a system using a compressed gas where the system has a pressure rating less than the compressed gas supply source and where, due to the gas capacity of the supply source, the system pressure rating may be exceeded.
- 4.1.2.10.7 Connection requirements. Connections that do not fit will not be forced. Threads on regulator connections or other auxiliary equipment will match those on container valve outlets.
- 4.1.2.10.8 Manifold. Where compressed gas containers are connected to a manifold, the manifold, and its related equipment will be of proper design for the product(s) they are to contain at the appropriate temperatures, pressures, and flows.
- 4.1.2.10.9 Equipment compatibility. Regulators, gauges, hoses, and other appliances provided for use with a particular gas or group of gases, will not be used on containers containing gases having different chemical properties unless information obtained from the supplier indicates that this can be done safely.

- 4.1.2.10.10.1 Container valves will be opened slowly and pointed away from personnel and sources of ignition.
- 4.1.2.10.10.2 For valves having no hand wheel the wrench provided by, or recommended by the supplier will be used.
- 4.1.2.10.10.3 On valve containing a hand wheel wrenches will not be used.
- 4.1.2.10.10.4 Valves will never be forced open or closed. If valves become frozen for whatever reason, the supplier will be contacted to provide instructions.
- 4.1.2.10.11 Dusting clothing, cleaning work areas. Compressed gas will not used to dust off clothing or clean work areas of debris. This may cause serious injury to the eyes or body or create a fire hazard.
- 4.1.2.10.12 Residual empty container pressure. When withdrawing a non-liquefied compressed gas from a container, it should not be reduced to below 20 psig so as to preclude the back flow of atmospheric air or other contaminants into the container. The container valve should be closed tightly to retain this residual pressure.
- 4.1.2.10.13 Check valves. Compressed gases will not be used where the container may be contaminated by the feedback of process materials unless protected by suitable traps or check valves.
- 4.1.2.10.14 Gas tightness. Connections to piping, regulators and other appliances will be kept tight to prevent leakage. Where hose is used, it shall be kept in good condition.
- 4.1.2.10.15 Removing pressure regulator. Before a regulator is removed from a container, the container valve shall be closed and the regulator drained of gas pressure.

- 4.2 General Safety Rules for Specific Types of Gases
  - 4.2.2 Flammable gases.
    - 4.2.2.1 Adjoining exposures. Provisions will be made to protect flammable gases from hazardous exposure to and against hazardous exposure from adjoining buildings, equipment, property, and concentrations of people.
    - 4.2.2.2 Heating requirements. Where storage areas are heated, the source will be by steam, hot water, or other indirect means. Heating by flames or fire is prohibited.
    - 4.2.2.3 Electrical equipment requirements. Will conform to the provisions of NFPA 70, National Electrical Code, article 501, for Class 1 Division 2 locations.
      - 4.2.2.3.1 Sources of ignition will be forbidden.
      - 4.2.2.3.2 Storage buildings will be well ventilated.
    - 4.2.2.4 Combustibles and ignition sources. Flammable gas containers stored inside of buildings with other occupancies will be kept at least 20 feet from combustibles or ignitions sources.
    - 4.2.2.5 Capacity limitations. Flammable gas containers stored inside industrial buildings on company property. (Except those in use or those attached for use are limited to a total gas capacity of 2500 cubic feet of acetylene or non-liquefied flammable gas, or a total container content water capacity of 735 pounds for liquefied petroleum gas or stabilized methylacetylene-propadiene).
    - 4.2.2.6 Fire protection requirements.
      - 4.2.2.6.1 Fire extinguishers. Adequate portable fire extinguishers of carbon dioxide or dry chemical types will be made available for fire emergencies at company storage locations.
      - 4.2.2.6.2 No smoking signs. Signs will be posted around the storage area of buildings or at the entrance to storage rooms.
      - 4.2.2.6.3 Leak testing. A flame or other ignition source will not be used for detection of flammable gas leaks. Use either a flammable gas leak detector, soapy water, or other suitable solution.

- 4.2.3 Oxygen (Including oxidizing gases)
  - 4.2.3.1 Cleanliness. Oxygen containers, valves, regulators, hose and other oxygen apparatus will be kept free at all times from oil or grease and will not be handled with oily hands, oily gloves, or with greasy equipment.
  - 4.2.3.2 Separation of oxygen from combustibles. Oxygen containers in storage will be separated from flammable gas containers or combustible materials (especially oil and grease) a minimum distance of 20 feet or by a noncombustible barrier at least 5 feet high having a fire resistance rating of at least one-half hour.
  - 4.2.3.3 Oxygen-rich atmospheres. The oxygen content in work areas (other than hyperbaric chambers) must not exceed 23 percent by volume.
  - 4.2.3.4 Compatibility of materials. Any materials used by the company that come into contact with oxygen in valves, piping, fittings, regulators, and utilization equipment must be suitable for use with oxygen, and at the pressures and conditions involved at the specific use point of material. The handling and use of oxygen above 3000 psi may involve greater fire potential, adequate safety systems analysis need to be made.
- 4.2.4 Acid and alkaline gases
  - 4.2.4.1 Personal protective equipment. Supervisors will ensure that precautions are taken to avoid contacting skin or eyes with acid or alkaline gases. Chemical goggles or face shields, rubber (or other suitable chemically protective material) gloves and aprons will be worn. Long sleeves and trousers will be worn. Open toed shoes or sneakers are prohibited.
  - 4.2.4.2 Respiratory equipment. Employees handling and using acid and alkaline gases will have gas masks or self-contained breathing apparatus (SCBA) immediately available for use. SCBA must be used when the concentration of the gas could be higher than the mask canister rating, and or where the oxygen content of the atmosphere could be below 19 percent by volume.
  - 4.2.4.3 Emergency showers and eyewash fountains. Supervisors will ensure that areas where acid or alkaline gases are used are equipped with an emergency shower and eyewash fountain.
  - 4.2.4.4 Quantity on site. Because of their hazardous nature, Supervisors will limit the quantity of this type of gas to the minimum requirements for the foreseeable future.
  - 4.2.4.5 Ventilation. Acid and alkaline gases will only be used in well ventilated areas.

#### 4.2.5 Highly toxic gases

- 4.2.5.1 Respiratory equipment. Employees handling and using highly toxic gases will have gas masks or self-contained breathing apparatus (SCBA) immediately available for use. SCBA must be used when the concentration of the gas could be higher than the mask canister rating, and or where the oxygen content of the atmosphere could be below 19 percent by volume.
- 4.2.5.2 Storage locations. Storage of highly toxic gases will be:
  - 4.2.5.2.1 Outdoors, or in a separate noncombustible building without other occupancy, or in a separate room without other occupancy.
  - 4.2.5.2.2 Of noncombustible construction with a fire-resistance rating of at least one hour.
  - 4.2.5.2.3 Well ventilated to preclude development of hazardous concentrations.
  - 4.2.5.2.4 Protected against tampering.
- 4.2.5.3 Ventilation. Highly toxic gases will be used only in forced ventilated areas or in hoods with forced ventilation, or outdoors. Hazard analysis will be conducted on equipment emitting high concentrations. The gas will be discharged into appropriate scrubbing equipment which will remove or neutralize the toxic effects before entering the effluent gas stream.
- 4.2.5.4 Toxicity. Supervisors will ensure the following. Before using a highly toxic gas, employees must read and understand all warning labels and material data sheet information. All employees working in the immediate area where these gases are handled will be instructed as to the toxicity of the gases and methods of protection against harmful exposure. Employees will not be exposed to concentrations greater than those determined to be safe levels by OSHA 29 CFR 1910.1000 and the threshold limit values guidance by the ACGIH.
- 4.2.5.5 Quantity on site. Because of their hazardous nature, Supervisors will limit the quantity of this type of gas to the minimum requirements for the foreseeable future.

#### 4.2.6 Cryogenic liquefied gases

- 4.2.6.1 Cryogenic liquids are gases which are handled in liquid form at relatively low pressure and extremely low temperatures, usually below -238 degrees F. Because of their low temperature, cryogenic liquids are handled in multi-wall, vacuum-insulated containers, tank trucks, tank cars, and storage tanks to minimize evaporation and venting of the gas. Some cryogenic liquids in small quantities are also handled in open, low pressure thermos type containers in laboratory work.
- 4.2.6.2 Personal protective equipment. Cryogenic liquids and cold gases can cause frostbite injury upon contact with the body. When handling cryogenic liquids Supervisors will ensure that employees use suitable eye protection, such as a face shield, safety glasses, or safety goggles, hand protection, such as insulated loose fitting gloves, and proper clothing to prevent other bodily exposure.
- 4.2.6.3 Ventilation. Cryogenic liquid containers will only be stored and handled in well ventilated areas to prevent excessive concentrations of the gas. Containers are equipped with pressure relief devices which permit venting of gas intentionally.
- 4.2.6.4 Container handling. Cryogenic liquid containers will be handled and stored in an upright position. The containers must not be dropped, tipped over, or rolled on their sides. A four wheeled handling truck will be used to move cryogenic liquid containers over 20 gallons capacity.
- 4.2.6.5 Containers. Containers designed for specific gas storage will not be used for any other type of gas.
- 4.2.6.6 Pressure relief devices. Containers entering this facility will be provided with DOT approved devices to prevent excessive buildup of pressure from warming gas. Where cryogenic liquids or cold gas may be trapped between valves, piping will be equipped with appropriate pressure relief devices.
- 4.2.6.7 Transfer of cryogenic liquids. Only transfer lines designed for cryogenic liquids will be used. Transfer of cryogenic liquids will be performed slowly enough to minimize excess evaporation and stress due to rapid cooling and contraction of warm containers and equipment.
- 4.2.6.8 Liquid oxygen. Liquid oxygen containers, piping and equipment will be kept clean and free of grease, oil, and organic materials. Ignitions sources are not permitted in areas where liquid oxygen is stored or transferred.
- 4.2.6.9 Liquid hydrogen. Ignitions sources are not permitted in areas where liquid hydrogen is stored or transferred. Liquid hydrogen must be stored and transferred under positive pressure to prevent the infiltration and solidification of air or other gases.
- 4.2.6.10 Liquid helium and liquid neon. Liquid helium and liquid neon must be stored and transferred under positive pressure to prevent the infiltration and solidification of air or other gases.
- 4.2.6.11 Liquefied natural gas. Ignitions sources are not permitted in areas where liquefied natural gas is stored or transferred. Liquefied natural gas must be stored and transferred under positive pressure to prevent the infiltration of air or other gases.
- 4.2.6.12 Inert gases. In areas where inert gases are used or stored employees will have self-contained breathing apparatus (SCBA) immediately available for use. SCBA must be used in the even the oxygen in the room is displaced by the inert gas creating an oxygen deficient atmosphere where the oxygen content of the atmosphere could be below 19 percent by volume.
- 4.3 General Safety Rules for Use of Compressed Gas.
  - 4.3.1 Pre-operation safety rules:
    - 4.3.1.1 Read the Safety Data Sheet before use.
    - 4.3.1.2 Inspect cylinder for damage before use.
    - 4.3.1.3 Ensure "In use" label is present.
    - 4.3.1.4 Ensure all labels/warnings are readable.
    - 4.3.1.5 Place upright on stable dry surface.
    - 4.3.1.6 Ensure cylinder is restrained above mid-point.
    - 4.3.1.7 Keep heat, flame, and electrical sources from gas.
    - 4.3.1.8 Operate in accordance with established procedures.
  - 4.3.2 Post-operation safety rules:
    - 4.3.2.1 Ensure "empty" or like label is present.
    - 4.3.2.2 Remove from operation using established procedures.

- 4.3.2.3 Close valve completely and cap cylinder.
- 4.3.2.4 Transport cylinder using a hand-truck.
- 4.3.3 Full cylinder storage rules
  - 4.3.3.1 Read the Safety Data Sheet before use.
  - 4.3.3.2 Do not smoke.
  - 4.3.3.3 Mark cylinder with date of storage.
  - 4.3.3.4 Ensure stock is properly rotated.
  - 4.3.3.5 Use oldest stock first.
  - 4.3.3.6 Inspect cylinder for damage before storage.
  - 4.3.3.7 Store with like kind of gas.
  - 4.3.3.8 Ensure all labels are readable.
  - 4.3.3.9 Ensure valve assembly is tightly capped.
  - 4.3.3.10 Ensure cylinder is restrained above midpoint.
  - 4.3.3.11 Store upright on stable dry surface.
  - 4.3.3.12 Keep electrical devices away from gas.
  - 4.3.3.13 Keep combustible materials away from gas.
  - 4.3.3.14 Keep heat and flame away from gas.
- 4.3.4 Empty cylinder storage rules
  - 4.3.4.1 Read the Safety Data Sheet before use.
  - 4.3.4.2 Do not smoke.
  - 4.3.4.3 Label cylinder "empty" before storage.
  - 4.3.4.4 Ensure valve assembly closed tightly.
  - 4.3.4.5 Ensure valve assembly capped tightly.

- 4.3.4.6 Inspect cylinder for damage before storage.
- 4.3.4.7 Store with like kind of gas cylinders.
- 4.3.4.8 Ensure all labels are readable.
- 4.3.4.9 Ensure cylinder is restrained above midpoint.
- 4.3.4.10 Store upright on stable dry surface.
- 4.3.4.11 Keep electrical devices away from gas.
- 4.3.4.12 Keep combustible materials away from gas.
- 4.3.4.13 Keep heat and flame away from gas.

## 5. Safety Information

- 5.1 Visual Inspection of Compressed Gas Cylinders.
  - 5.1.1 Employees will use the following for general inspection of compressed gas cylinders. Our supplier has the first responsibility for inspection of cylinders used by the company in accordance with CGA and NFPA guidelines. Only the following inspection criteria will be followed by employees:

Inspect For:	Possible Result:
Dents	Weakening of cylinder wall
Cuts, gouges, or digs	Decrease in wall thickness
Corrosion	Decrease in wall thickness
Pitting	Decrease in wall thickness
Crevice corrosion	Weakening of cylinder wall
Bulges	Weakening of cylinder wall
Neck defects	Leak or cylinder explosion
ARC/Torch burns	Weakening of cylinder wall
Valve ease of movement	Corrosion leading to leak
Valve thread serviceability	Leak during operation

- 5.1.2 Suspect cylinders. Cylinders that are suspected to be deficient in any manner will be removed from service. The supplier will then be notified and a representative of the supplier will be asked to inspect the cylinder. Employees discovering a cylinder suspected to be deficient in any manner should notify the Safety Officer.
- 5.1.3 Cylinders will be stored upright and chained to an external wall when not in use.
- 5.2 Facility/Department Evaluation
  - 5.2.1 An evaluation of our facility(s) will be conducted to identify, designate, and prioritize Compressed Gas use and storage.

- 5.2.2 Existing Compressed Gas Systems. A process hazard analysis will be conducted for existing systems. Existing systems where possible, will be designated and managed as a complete and separate process.
- 5.2.3 Future Compressed Gas Systems. For new systems, a process hazard analysis will be conducted. The PHA will be used to improve the design and construction of the process from a reliability and quality point of view. The safe operation of the new process will be enhanced by making use of the PHA recommendations before final installations are completed.
- 5.3 Gas System listing
  - 5.3.1 Designated gas systems will be stored in locations so as not to cause undue hazards to employees.
  - 5.3.2 All pipes and delivery components will be inspected annually at a minimum.
- 5.4 Compressed Gas Association Safety Manuals
  - 5.4.1 To obtain any of the CGA safety manuals you can contact the CGA for a current literature catalog at: <u>www.cganet.com</u>. These include: the Handbook of Compressed Gases; Equipment such as regulators, hose lines, valve connections and pressure relief devices; information on specific gas types and their handling; Insulated cargo tanks, and the protection and safe handling of specific cylinders

#### 6. Training and Information

- 6.1 Initial Training. Initial training will be provided before job assignment. The company shall provide training to ensure that the purpose and function of the Compressed Gas Safety Program is understood by employees and that the knowledge and skills required for the safe application and usage of compressed gases are acquired by employees. The training shall include the following:
  - 6.1.1 Applicable hazards. Each authorized employee shall receive training in the recognition of applicable hazards associated with compressed gases, and the methods and means necessary for safe operation.
    - 6.1.1.1 Purpose and use. Each affected employee shall be instructed in the purpose and use of the compressed gas they will come in contact.
    - 6.1.1.2 Awareness level training. All other employees whose work operations are or may be in an area where compressed gas may be utilized, shall be instructed about the emergency procedure, and about the prohibition(s) relating to compressed gases used in their work area.
    - 6.1.1.3 Warning labels. All employees, whose work operations are or may be in an area where compressed gas may be utilized, will be instructed in the recognition and use of warning labels.

- 6.1.1.4 Storage requirements. Storing and handling requirements will be covered in accordance with this safety program.
- 6.1.1.5 Handling requirements. Handling requirements will be covered in accordance with this safety program.
- 6.1.1.6 Moving requirements. Moving requirements will be covered in accordance with this safety program.
- 6.1.1.7 Connecting and disconnecting requirements. Connecting and disconnecting requirements will be covered in accordance with this safety program.
- 6.1.1.8 Health hazards regarding specific gases. Health hazard regarding specific gases will be covered in accordance with this safety program.
- 6.1.1.9 General safety precautions. General safety precautions will be covered in accordance with this safety program.
- 6.1.1.10 Verification. The company shall verify that employee training has been accomplished and is being kept up to date. The documentation shall contain each employee's name and dates of training.
- 6.1.1.11 Authorized trainers. The compressed gas suppliers will be requested to provide training as needed or required for all compressed gas users and handlers.
- 6.2 Refresher Training. Refresher will be conducted on an as needed basis. Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in the type of gas used, equipment or processes that present a new hazard, or when there is a change in operating procedures.
  - 6.2.1 Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever there is reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of the compressed gas safety procedures.
  - 6.2.2 The retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.
- 6.3 Verification. The company shall verify that employee training has been accomplished and is being kept up to date. The documentation includes employee's name and dates of training.

## 7. Definitions

CGA – Compressed Gas Association

# TRAINING ATTENDANCE ROSTER COMPRESSED GAS

## Compressed Gas Training Includes:

- General cylinder hazards
- Storage requirements
- Safe handling procedures
- Specialized gas hazards

INSTRUCTOR:	<u>DATE:</u>	LOCATION:
NAME (Please Print) FIRST - MI - LAST	SIGN	ATURE
By signing below, I attest that I have atten safety information, procedures, rules,	nded the safety training for the top regulations and/or company polic	bic indicated, and will abide by the cy as presented and instructed.

Name of Interpreter, if utilized: \_\_\_\_\_

Electrical [General]

## PROGRAM OVERVIEW

## ELECTRICAL (GENERAL) SAFETY PROGRAM

REGULATORY STANDARD: OSHA - 29 CFR 1910.331 - 335

OSHA - 29 CFR 1926.302, 1926.416-417

### INTRODUCTION

Outlines the general electrical requirements for buildings where employee exposures do not exceed the use of cord and plug equipment. Companies must inspect facilities to ensure compliance with general electrical safety practices. All other types of exposure hazards are contracted or performed by licensed electricians or similarly qualified persons for repair and testing work.

## TRAINING

Employee training is recommended.

## ACTIVITIES

- Review hazards and determine level of exposures.
- Ensure electrical services are contracted with licensed electricians, if only cord and plug equipment hazards are encountered by employees. Otherwise ensure that safeguards, equipment, and training is provided to employees who encounter other electrical hazards.
- Ensure service panel boxes (circuit breakers and fuses) have covers that remain closed.
- Ensure service panel boxes have clear and unobstructed access for use in emergencies.
- Ensure outlet receptacles and overhead junction boxes have cover plates so that wires are not exposed.
- Ensure that outlets within 3 feet of water sources (sinks, drinking fountains, etc) are GFCI protected.

## FORMS

• Training Attendance Roster

## Table of Contents

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

# ELECTRICAL (GENERAL) SAFETY PROGRAM

- 1. **Purpose.** This program outlines the processes to protect employees in their workplaces from hazards associated with electrical energy, for companies that use licensed electricians and contractors for their electrical service needs.
- 2. Scope. This program applies to all employees who use only cord-and-plug type equipment and have no other likely electrical exposures in the workplace.

### 3. Responsibilities

- 3.1 Management
  - 3.1.1 Ensure any modifications to existing equipment meet Electrical Safety Standards.
  - 3.1.2 Ensure installations of new equipment are assessed or inspected to assure they meet the electrical safety standard requirements.
  - 3.1.3 Assure employees have exposures only to cord and plug equipment. Any person who has further exposure to live electrical energy must be "qualified" under the requirements of the regulatory standard and appropriately trained, based on the risks presented.
  - 3.1.4 Ensure all contractors who work with electrical parts, components or hazards have a written Electrical Safety Program in place, prior to their beginning work.
- 3.2 Contractors
  - 3.2.1 Provide the company with a copy of their written Electrical Safety Program and/or employee training records, upon request.

## 4. Procedure.

- 4.1 Ensure cord and plug equipment is in good working condition. Inspect for:
  - 4.1.1 Housing integrity (no cracks or breaks)
  - 4.1.2 Wiring integrity (no broken insulation or exposed wires)
  - 4.1.3 Grounding pins (the third prong on the plug) are in place.
- 4.2 Ensure electrical service panel boxes are clear and unobstructed. Panel box doors must remain in a closed position and any open knockouts must be covered or closed.
- 4.3 Ensure all outlets in the facility have cover/face plates so that wires are not exposed.

- 4.4 Ensure any electrical outlets within 3 feet of a tap, faucet, sink or similar water source are GFCI protected.
- 4.5 Extension cords must be used only as temporary power supplies, and are not a replacement for permanent wiring. Extension cords must be used on a GFCI circuit only.

## 5. Safety Information.

- 5.1 General
  - 5.1.1 Qualified Employees Only "Qualified" individuals are allowed to work on or near energized equipment. A process must be in place to ensure that employees performing electrical tasks are qualified and trained as appropriate.
  - 5.1.2 Safe Work Practices Each person is expected to work within the limits of their expertise and training and follow established practices, which are developed according to the hazards and tasks performed. Examples are:
    - 5.1.2.1 DO NOT leave exposed electrical hazards unattended
    - 5.1.2.2 Replace covers or protect energized components from inadvertent contact
    - 5.1.2.3 Utilize proper insulation and/or protective equipment and proper tools corresponding to the level of exposure.
- 5.2 Safety Related Work Practices
  - 5.2.1 Selection and Use of Work Practices. Work practices are designed to prevent shock and other injuries from either direct or indirect contact with live electrical parts and energy.
    - 5.2.1.1 Employees are expected to have exposure only to cord and plug equipment, and not live energized parts of equipment. Any other exposure to live energy requires training and qualifications to ensure adequate protection. Employees are instructed to contact their supervisor or manager if there are any electrical issues or concerns in the workplace.
    - 5.2.1.2 Any conductive material must be handled in a manner that prevents contact with energized parts and materials. Procedures and work practices may need to be implemented when long-dimension objects (e.g. tree trimming poles) are used or handled in such areas.
    - 5.2.1.3 Portable ladders must be non-conductive if used near energized materials.

## 5.2.2 Use of Equipment

- 5.2.2.1 Portable equipment (cord and plug type) must be handled so that it is not damaged. Flexible cords may not be used to raise, lower, pull, move or hang equipment where the insulating jacket could be damaged.
  - 5.2.4.1.1 Visual inspection must occur before use. Inspection includes looking for loose parts, deformed pins, and damage to the jacket or insulation. If equipment remains in place, it does not require inspection unless it is relocated.
  - 5.2.4.1.2 Damaged equipment must be repaired or replaced prior to use. Repairs may require testing to assure electrical continuity and safety.
  - 5.2.4.1.3 Plugs must be the appropriate type for the receptacle. Devices to circumvent this are prohibited (i.e. a threeprong adapter that allows the equipment to be plugged into a two-prong receptacle).
  - 5.2.4.1.4 Highly conductive environments (wet or damp locations or hazardous atmospheres) must use only equipment approved for that environment. Employees must not plug equipment in to receptacles in such locations if their hands are wet and equipment is energized. Insulating materials may be required when electrical energy can be conducted through the hands or fingers.
- 5.2.4.2 Power and Lighting Circuits must use the switches, breakers or disconnects to open, reverse or close circuits when live energy is present. Over-current protection may *not* be modified.
- 5.2.4.3 Where flammable or ignitable vapors, gases or dusts are present at any time electrical equipment capable of igniting these materials may not be used.
- 5.2.5 Safeguards for Personal Protection
  - 5.2.5.1 Insulted tools and equipment are used when contact with live energy is possible. If the insulating capability of tools and equipment could be damaged during use the insulating material must be protected.

## 6. Training and Information

None required.

## 7. Definitions

- > Conductor A wire or other conduit that conducts electricity
- > *De-energized* Free from any electrical connection to an energy source
- Electrical Personal Protective Equipment and Devices Protective equipment that is specifically designed to protect individuals from shock, arc blast, arc flash, etc.
- Electrical Safety Program The program that directs activity appropriate for the voltage, energy level, and circuit conditions, and include safety-related work practices.
- > Energized Electrically connected to an energy source.
- Over-Current Protection A device that protects equipment or conductors from current in excess of the rating for the equipment or conductors.
- Qualified Person A person trained and knowledgeable to recognize and avoid electrical hazards of equipment or a specific work method.
- Safety Related Work Practices Methods that are consistent with the nature and extent of electrical hazards that are meant to safeguard employees from injury while working on or near exposed electric conductors or circuit parts that are (or can become) energized.
- Un-Qualified Person An individual that is not permitted to work on electrical equipment because they do not have the necessary skills and/or training to perform the work safely.

# TRAINING ATTENDANCE ROSTER ELECTRICAL SAFETY (GENERAL)

## Electrical Safety (General) Training Includes:

- Definition
- How Electricity Works
- Amps, Volts, Circuits
- Types of Injuries (Shock, Burns, Electrocution)
- Basic Control Methods
- Wires, Grounding and GFCI
- Safe Work Practices and PPE

INSTRUCTOR:	<u>DATE:</u>	LOCATION:	
NAME (Diagon Drint)			
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	ne safety training for the topic indicated, and will		
	formation, procedures, rules, regulations and/or company policy as		
presented and ins			

Name of Interpreter, if utilized: \_

Emergency Action, Evacuation, and Fire Prevention

## PROGRAM OVERVIEW

# EMERGENCY ACTION, EVACUATION AND FIRE PREVENTION SAFETY PROGRAM

REGULATORY STANDARD: OSHA - 29CFR1910.36, .38, .157, .165 NFPA-10

#### INTRODUCTION

This program is intended to assist in establishing requirements to ensure that fire and other potential emergency situations are evaluated and safety procedures implemented.

#### TRAINING

- All employees and supervisors will be trained in emergency actions and their responsibilities including how emergencies are communicated. Training is required initially, and as changes to the workplace, program or employee responsibilities occur
- Conduct drills, if required
- Emergency Response Team members must be trained based on the types of emergencies they will be expected to encounter. Fire fighting techniques, first aid treatment or both may be required, depending upon the duties and responsibilities of the team
- Employees designated to use fire extinguisher users must be trained annually in the general principles of fire extinguisher use and the hazards involved in incipient (beginning) stage fire fighting

#### ACTIVITIES

- Identify and evaluate fire hazards
- Identify and evaluate exit routes
- Identify fire wardens and response teams and define responsibilities, if applicable
- Provide emergency equipment as needed
- Write and communicate policies and procedures including Emergency Action and Fire Prevention Programs

#### FORMS

- Emergency Action Plan
- Fire Drill or Evacuation Assessment
- Training Attendance Roster Emergency Action
- Training Attendance Roster Fire Extinguisher

## Table of Contents

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

## EMERGENCY ACTION, EVACUATION AND FIRE PREVENTION SAFETY PROGRAM

- 1. **Purpose.** This program outlines the requirements for the Emergency Action and Evacuation Program in the workplace. It is a federal requirement that all companies have Emergency Action Plans (plans must be in writing for companies with more than 10 employees).
- 2. Scope. This program applies to all workplaces, facilities, and sites at the company.

#### 3. Responsibilities

- 3.1 Management
  - 3.1.1 Determine flight or fight response for the company (i.e. will all employees evacuate during fire or spill emergencies, or will some employees be required as part of their job duties to fight a fire, contain a spill or provide medical treatment).
  - 3.1.2 Write Emergency Action Plan (EAP), including specific procedures or responsibilities for employees and wardens.
  - 3.1.3 Communicate programs to employees and staff.
  - 3.1.4 Ensure evacuation alarm systems and notifications are in place, and are distinctive and consistent throughout the site. It is recommended that evacuation programs be periodically tested through physical drills (partial evacuation drills and/or full evacuation drills) or via table-top drills or discussions.
  - 3.1.5 Ensure all employees are appropriately trained to the responsibilities they are expected to take during an emergency situation, including how to report a fire or other emergency and what to do during an evacuation.
  - 3.1.6 If evacuation wardens are designated and trained, it is recommended that there be a ratio of at least one warden for every 20 employees.
  - 3.1.7 Ensure that fire extinguishers (if located on-site) are inspected, maintained, tested and of the proper size and type for the area hazards. If employees are expected to use them, annual training is required.
  - 3.1.8 If utilized, provide on-site emergency response teams with appropriate equipment and training to perform their expected duties. Maintain training documentation for response team members, and documentation for equipment inspection and maintenance.
  - 3.1.9 Inspect Fire Doors annually, and keep all fire doors closed. If they must be held open due to production or operation-specific requirements, they must be fitted with automated releases in accordance with state building codes. Maintain documentation for the life of the fire door.

## 3.2 Employees

- 3.2.1 Attend initial training, and refresher training as required.
- 3.2.2 Evacuate, or perform expected tasks prior to evacuation, during an emergency.
- 3.3 Wardens (evacuation assistance as appropriate or designated)
  - 3.3.1 Attend appropriate training.
  - 3.3.2 Follow established procedures to assist in the safe and orderly evacuation of employees.
  - 3.3.3 Report either the all-clear or problems to the incident commander or other designated person at the command post.
- 3.4 On-site Response Teams (as appropriate or designated)
  - 3.4.1 Provide emergency response to fires, spills or medical emergencies, as designated.
  - 3.4.2 Attend appropriate training to maintain appropriate certifications.
  - 3.4.3 Ensure emergency response equipment is functioning and adequate to the response(s) required.

## 4. Procedure.

- 4.1 Emergency Action Plan
  - 4.1.1 May be combined with Fire Prevention Plan, if required, into one document that serves both purposes.
  - 4.1.2 Must be in writing, kept at the workplace and available for employees to review. Companies with 10 or fewer employees may communicate the program orally, rather than in writing.
  - 4.1.3 Programs must include:
    - 4.1.3.1 Procedures for reporting a fire or other emergency.
    - 4.1.3.2 Procedures for emergency evacuation, including types of evacuations and assigned evacuation routes. (Posted, color coded evacuation route maps are highly recommended for each area of the building or structure.)

3

- 4.1.3.3 Procedures to be followed by employees who remain to operate or shut down critical operations before they evacuate (power systems, water supplies, ammonia tanks, chemical processes that must be shut down in sequence, etc.).
- 4.1.3.4 Procedures, assigned areas and responsibilities of evacuation wardens, if utilized.
- 4.1.3.5 Procedures to account for all employees after evacuation.
- 4.1.3.6 Procedures to be followed by employees who perform rescue or medical duties (on-site response teams).
- 4.1.3.7 The name or job title of the person(s) who may be contacted by employees who need more information about the program, or an explanation of their duties and responsibilities under the program.
- 4.1.4 An alarm system must be maintained, if present. The system must have a distinctive signal for each type of alarm (i.e. evacuation alarms must sound the same throughout the site).
- 4.1.5 Wardens (or evacuation assistance) must be designated and properly trained to assist in a safe and orderly evacuation of other employees.
- 4.1.6 Programs should address the types of emergencies that are reasonably likely to occur (fire, chemical spills, severe weather, etc.).
- 4.2 Evacuation and Notification
  - 4.2.1 Alarms and Signals to notify employees of an emergency evacuation are distinctive in sound and consistent throughout the site.
    - 4.2.1.1 Alarms may be automatic or verbally provided in person or through a public address system, but they must be able to be understood by all employees.
    - 4.2.1.2 The same sound or wording must be used throughout the site.
    - 4.2.1.3 Employees must be trained or informed of the sounds or wording used.
  - 4.2.2 Evacuation Routes will be established for each area of the building or site.
    - 4.2.2.1 Employees will be trained and informed of their work-area route.
    - 4.2.2.2 It is highly recommended that maps be posted at each area of the building to assist employees and others in determining their evacuation routes. Maps should be color coded, with the evacuation route in red.

- 4.2.2.3 Off-site job locations will have evacuation routes determined and communicated to employees who work at these off-site locations.
- 4.2.3 Relocation Points will be established for employees to congregate during an evacuation. Designated relocation points assist in assuring that all employees are accounted for.
  - 4.2.3.1 Employees will be trained in their respective relocation point during initial (or refresher) training.
  - 4.2.3.2 Supervisors or other specifically designated people at each relocation point will be responsible for assuring that all employees have been accounted for.
    - 4.2.3.2.1 An accounting for the relocation point will be made to the incident commander or other designated person at the command post.
  - 4.2.3.3 Off-site job locations will have relocation points determined and communicated to employees who work at these off-site locations before the job commences or the employee reports to the site.
  - 4.2.3.4 Where appropriate, severe weather relocation points (shelters or arrangements with neighboring facilities) will be communicated to employees during the training.
- 4.2.4 Return to Work Signals will be provided once it is safe for employees to reenter the workplace. Each supervisor or other designated person at each relocation point will be aware of the signal used, and be watchful for it.
- 4.2.5 Evacuation Wardens
  - 4.2.5.1 "Sweep" the assigned area to assure that all employees are appropriately evacuated.
  - 4.2.5.2 Carry out any other assigned duties, prior to evacuating.
  - 4.2.5.3 Report either "all clear" or any problems to the incident commander or other person designated under the company's EAFP prior to reporting to their assigned relocation point.

## 5. Safety Information.

- 5.1 Means of Egress (exits and exit paths)
  - 5.1.1 All employees must be able to safely exit the building in a direct path and within a reasonable time frame.

- 5.1.2 There are specific requirements for exits, paths to exits, exit signs, aisle widths and for stairways. These "life safety" codes must be considered during renovation, construction or when re-arranging a work area..
- 5.1.3 All exits, aisles and exit paths, and stairways must be kept clear and unobstructed. No storage is allowed that will restrict the access or use of the exit path below the required widths. No storage is allowed that will block or obstruct stairs or exit doors.
- 5.1.4 All exits and the paths to them must be clearly visible or have visible signs that indicate the location of the exit.
- 5.1.5 Locks or fastening devices to keep exit doors closed and locked from the inside (preventing the use of the door as an exit) are prohibited in almost every workplace structure (mental and correctional institutions are two exceptions). Doors that could be mistaken for an exit, but are not exits must be marked "Not an Exit" or "Closet" or with similar markings so that they will not be mistaken for an exit in an emergency.
- 5.1.6 Emergency lighting, signs and exits must meet requirements for the number of exits, the location and size of signs and the amount of illumination required.
- 5.2 Fire Alarms and Detection
  - 5.2.1 Fire alarms are required in buildings where the location of the fire will not provide adequate warning to employees and other occupants (i.e. multi-floor buildings or segregated work spaces).
  - 5.2.2 Alarms must be loud enough to be heard above the ambient noise level of the work area and activate in time to provide adequate warning for the work area occupants to safely evacuate.
  - 5.2.3 Alarms and signals must be tested or maintained to assure they remain in working order.
  - 5.2.4 Buildings undergoing construction and renovation (where employees are still working and occupying the work areas) must have appropriate (or alternate) alarms and fire prevention systems that are at least equal to those required for the occupancy and type of hazards in the area. This includes hazards inherent to the work area and tasks performed, as well as any additional hazards caused by the construction or renovation.
- 5.3 Fixed Fire Suppression Equipment
  - 5.3.1 All fixed suppression equipment must be maintained and tested by trained persons. The local fire department may provide or be able to be contracted to perform this maintenance and testing. Specific employees may be designated and trained for this service, depending upon the maintenance and testing requirements for the system.

Rev. [12/16]

- 5.3.2 There are various types of fixed suppression equipment. Each type must be specifically designed for the types of fires likely to be encountered. These types are:
  - 5.3.2.1 Automatic sprinklers that discharge water into an area when heat or smoke causes the valve (sprinkler head) to open. Sprinkler heads must be kept free from any obstruction (at least 18" clearance vertically and horizontally).
  - 5.3.2.2 Standpipe systems include fixed water supplies (risers) with a hose and nozzle. These systems are usually recessed in walls or found in stairwells. Standpipe systems are for use by trained fire-fighting personnel only.
  - 5.3.2.3 Dry chemical systems are discharged in rooms or over a specific process (like an electrical system). Pre-discharge alarms are required where vision could be obscured that would affect employee evacuation.
  - 5.3.2.4 Gaseous agents are normally used in enclosed rooms and spaces. Depending on the agent used to suppress the fire, pre-discharge alarms are required. Where employee evacuation can not occur within a specific time frame, specific agents are prohibited from being used as suppression agents.
  - 5.3.2.5 Water spray and foam systems are usually utilized for a specific process hazard (like a kitchen grease pit or solvent tank). They discharge a chemical-foam that will "blanket" the fire or area with foam to "smother" the fire.
- 5.4 Portable Fire Extinguishers
  - 5.4.1 The Two Extinguisher Rule: Fire extinguishers are for controlling small, incipient fires. NEVER should more than two (2) extinguishers be used to control a fire. If the fire is not controlled with two extinguishers, it is no longer considered an incipient fire and should ONLY be extinguished by trained Firefighters or by fixed fire suppression systems.
  - 5.4.2 Classes. There are five classes or types of Fire Extinguishers. Each class has distance requirements that are required for employees to access them. These types and distances are:
    - 5.4.2.1 Class A used on ordinary combustibles (wood, paper, cloth, etc.). Extinguishers must be 75 ft. or less from the hazard.
    - 5.4.2.2 Class B used for flammable or combustible liquids (gasoline, paint, solvents, propane). Distance must be 50 ft. or less from the hazard.

- 5.4.2.3 Class C used for electrical equipment and must be 50 ft. or less from the hazard.
- 5.4.2.4 Class D used for metals (magnesium, potassium and sodium). Extinguishers must be 75 ft. or less from the hazard.
- 5.4.2.5 Class K used for fires that involve cooking oils, trans-fats, or fats in cooking appliances and are typically found in restaurant and cafeteria kitchens.
- 5.4.3 General. Extinguishers must be located so they are clearly visible, readily accessible to the employees or persons designated and trained to use them, and located so they are protected from damage by moving equipment.
  - 5.4.3.1 Extinguishers must be maintained in a fully charged and operable condition, and kept in their designated locations.
  - 5.4.3.2 Extinguishers must be appropriate to the type (or class) of fire hazard likely to be found in the work area.
  - 5.4.3.3 Standard signs and floor markings may be utilized to increase visibility.
  - 5.4.3.4 Extinguishers should be located along normal paths of travel but protected from the direct line of traffic to avoid injury to personnel or mechanical damage.
  - 5.4.3.5 Extinguishers are not required in workplaces where all employees will be required to evacuate the facility (total evacuation) upon the initial alarm sounding, unless extinguishers are required by a specific regulatory standard (i.e. welding, confined space, and some flammable liquid usages).
- 5.4.4 Inspection and Testing. Extinguishers must be visually inspected monthly. Extinguishers must be maintained annually. Extinguishers must be physically (hydrostatically) tested every 5 years or 12 years depending on the type of extinguisher. When removed from service for maintenance or testing, or due to corrosion or damage, they must be replaced with an equivalent protective system.
  - 5.4.4.1 Documentation of the inspection, maintenance and testing may be kept with the extinguisher or in a separate system, provided the records are accessible to employees or agencies that may be required to review these records. Documentation must be kept for the life of the extinguisher.
- 5.4.5 Employee Training

- 5.4.5.1 Where extinguishers are located, but employees will not be required to use them, employees should be informed that they are for trained fire fighter use only.
- 5.4.5.2 Where employees will be required to use extinguishers, employees must be trained annually in the general principles of fire extinguisher use and the hazards involved in incipient (beginning) stage fire fighting.
- 5.5 Fire Brigades and On-Site Response Medical Teams (as appropriate)
  - 5.5.1 Fire Brigades and Medical Response teams must be trained to the level or type of emergency they will likely encounter. In most cases, verified training is required, and documentation must be maintained with periodic or annual refresher training.
  - 5.5.2 Team members must be physically capable of performing their duties (including the use of respiratory protection, where required). Employees with known physical conditions (heart disease, emphysema or epilepsy) or known mental or physical disabilities that would impair their ability to perform the expected duties may be required to be approved by a licensed physician prior to being allowed to participate on the team.
  - 5.5.3 Teams must be provided with adequate equipment and protective clothing to perform their duties.
  - 5.5.4 Equipment and clothing must be maintained in good working order. Equipment removed from service must be promptly repaired or replaced, or else team members must be informed that the equipment is no longer available.
  - 5.5.5 Teams must be organized, with either elected or appointed leaders, and have specific written procedures that outline their responsibilities (and limitations) with regard to emergency response at the workplace.
- 5.6 Hot Work, Open Flame Work or Spark Producing Equipment
  - 5.6.1 Permission and Permits. Any hot work or work with open flames should be performed only with the permission of company management. (Approvals may be required by the landlord or building owner, if different than company ownership.) Such work should be done only under specific restrictions and limitations to prevent fires or other hazards. This information and any restrictions or limitations should be documented. A signed permit system is recommended that outlines the details of the work and the restrictions or limitations.
  - 5.6.2 Permanent Hot Work/Open Flame Permission Permanent permission should be obtained for areas where hot work/open flame is regularly used, such as metal and welding shops or special laboratories and work areas.

- 5.6.2.1 Areas should be physically inspected by individuals who are knowledgeable about the hazards of the area and appropriate fire protection systems for these hazards. Annual re-inspection for the duration of the permit/permission is recommended, at a minimum.
- 5.6.3 Temporary Hot Work/Open Flame Permission Allows only specified personnel to perform a single operation. Areas where one-time use of flames is required (such as maintenance and construction operations, in areas such as buildings, sheds, yard areas, and streets and parking lots) should have areas physically inspected for fire hazards by a knowledgeable person.
- 5.6.4 Special Situations and Equipment
  - 5.6.4.1 Thermogrip Solder Tongs, Electric Soldering Irons, Flameless Heat Guns are prohibited in areas where flammable vapors or gases, or combustible dusts are present.
  - 5.6.4.2 Electric or Other Spark/Heat-Producing Tools in High-Fire Hazard Areas require special permission.
  - 5.6.4.3 Pressure Vessels All burning or welding operation, emergency or otherwise, are prohibited on any pressure vessel unless specific approval has been obtained from a qualified engineering specialist or the lead welder.
  - 5.6.4.4 Contractors shall obtain Hot Work/Open Flame Permits through the manager or supervisor in charge of the job or process.

## 6. Training and Information.

- 6.1 Emergency Action Plans and Evacuation Programs must be reviewed with each employee:
  - 6.1.1 When the program is developed or when it is changed
  - 6.1.2 Upon initial assignment to a work area
  - 6.1.3 When the workplace changes (construction or remodeling) that require a different evacuation route
  - 6.1.4 When an employee's responsibilities under the program change.
- 6.2 Fixed Suppression Systems. Employees where fixed suppression equipment agents activate (non-water systems) must be specifically trained in the alarm signal, and any protective equipment and controls needed to ensure their safety. They must have (and be trained to) specific evacuation programs from the area of discharge.

- 6.3 Emergency Response Team members must be trained based on the types of emergencies they will be expected to encounter. Fire fighting techniques, first aid treatment or both may be required, depending upon the duties and responsibilities of the team.
- 6.4 Fire extinguisher users must be trained annually in the general principles of fire extinguisher use and the hazards involved in incipient (beginning) stage fire fighting.

### 7. Definitions.

- Brigades A workplace team of employees who are specifically designated to respond and fight incipient fires.
- Fixed Suppression Equipment Fire extinguishing systems that are affixed in place. For example: sprinkler systems.
- Command Post A designated location that is set up for communications and direction of emergency responders.
- Incident Commander The person designated to direct the activities of an emergency response. This person normally remains at the command post.

	E	EMERGENC	EMERGENCY ACTION PLAN	Z	
COMPANY NAME:				DATE:	
SITE ADDRESS:			PLAN C	PLAN COMPLETED BY:	
Emergency Escape Procedures and Escape Route Assignments: (optional - attach evacuation route map)	es and Escape Route A	ssignments: (optio	nal - attach evacuation	route map)	
Procedures to be followed by employees who remain to operate critical operations before t	employees who remain	to operate critical		hey evacuate:	
Procedures to account for employees after evacuation is complete (e.g. crew leader counts crew – reports status to emergency services):	ployees after evacuation	n is complete (e.g.	crew leader counts cre	w – reports status to e	mergency services):
Employee rescue or medical duties:	duties:				
Methods to report fires and other emergencies:	her emergencies:				
Person(s) to contact for questions regarding site Emergency Action Plan or employee duties under Plan (name and phone number):	ions regarding site Eme	rgency Action Plar	n or employee duties ur	nder Plan (name and p	hone number):
Emergency Type	Notification Method (Automatic, Pull Box, Phone)	Site Contact	Emergency Services Number	Designated Mee	Designated Meeting/Evacuation location(s)
FIRE				For Fire:	
TORNADO					
EARTHQUAKE				For Tornado:	
CHEMICAL SPILL/RELEASE				For Earthquake:	
MEDICAL EMERGENCY					

Rev. [12/16]

FIRE DRILL OR EVACUATION ASSESSMENT						
	vacuation Ind time:		Total time fo evacuation proc			
Evacuation Routes Marked:	🛛 Yes 🖾 No	Exit	Signs Visible or Evacua Routes Posted:	tion	Yes 🔲 I	No
					<u>.</u>	
Was the building completely evac	uated?				🗆 Yes	🗖 No
Was the evacuation signal heard i	n every area of the	building	?		🗆 Yes	🗖 No
Did all employees meet at their de	signated relocation	n point?			🗆 Yes	🗖 No
Have procedures for the handicapped been addressed?				🗆 Yes	🗖 No	
Did all equipment (stairwell doors, alarms, etc.) function properly?				🗖 No		
Problem or Issue Noted And Co	rrective Action To	o Be Tal	ken:			
Name of Person Responsible fo	r Corrective Actio	on:	Co	mpleted Dat	te:	
Additional Comments/Requirements:						
Evaluator's Name:	S	ignature				

# TRAINING ATTENDANCE ROSTER EMERGENCY ACTION

## Emergency Action Training Includes:

- Escape Procedures
- Procedures to follow
- Account for employees
- Employee, rescue or medical duties
- Methods to report fires or other emergencies
- Contacts

INSTRUCTOR:	<u>DATE:</u>	LOCATION:	
NAME (Please Print) FIRST - MI - LAST	SIGNATURE		
	afety training for the tonic indicated and will		
By signing below, I attest that I have attended the safety training for the topic indicated, and w abide by the safety information, procedures, rules, regulations and/or company policy as			
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Name of Interpreter, if utilized:

TRAINING ATTENDANCE ROSTER FIRE EXTINGUISHER				
<ul> <li>Fire Extinguisher Training Includes:</li> <li>Types of extinguishers</li> <li>Inspection methods</li> <li>PASS system</li> <li>When you should not fight a fire</li> </ul>				
<u>INSTRUCTOR:</u>	<u>DATE:</u>	<u>LOCATION</u> :		
NAME (Please Print) FIRST - MI - LAST	SIGNATURE			
By signing below, I attest that I have attended the safety training for the topic indicated, and will abide by the safety information, procedures, rules, regulations and/or company policy as presented and instructed.				

Name of Interpreter, if utilized:
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Hand and Portable Power Tools

#### PROGRAM OVERVIEW

# HAND AND PORTABLE POWER TOOLS SAFETY PROGRAM

**REGULATORY STANDARD:** OSHA - 29 CFR 1910.241 – 244 - 29 CFR 1926.300 – 305

INTRODUCTION

Tools can present a variety of hazards including cuts, lacerations, blindness from flying particles, and serious contusions if caught in rotating parts or nip points. Tools must be inspected and, when required, employees trained in the proper use, inspection and maintenance of the tools and their guarding systems. Personal protective equipment (such as safety glasses or gloves) may frequently be required, even if guarding systems are in place.

### TRAINING

- Training is recommended for power tool use
- Training and licensing is required for tools that use explosive charges (powder-actuated)

#### ACTIVITIES

- Inspect tools before use to ensure they are in good operating condition.
- Look for items such as housing integrity, complete insulation on cord systems, and that grounding pins have not been removed from plug-sets.

#### FORMS

- Hand and Portable Tool Guarding and Safety Requirements
- Training Attendance Roster

## Table of Contents

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

# HAND AND PORTABLE POWER TOOLS SAFETY PROGRAM

- 1. **Purpose.** The company requires that hand and portable power tools be purchased, maintained, and used only by qualified personnel who understand the limitations and requirements for the safe use of such tools. This safety program will be reviewed and evaluated:
  - 1.1 On an annual basis or more frequently as needed.
  - 1.2 When changes occur to 29 CFR 1910.221 244 that prompt revision of this document.
  - 1.3 When facility operational changes occur that require a revision of this document.
- **2. Scope.** Applies to all locations where portable hand and power tools are used or maintained.

#### 3. Responsibilities

- 3.1 Management/Supervisors
  - 3.1.1 Purchase only those electrical tools that have been listed by a Nationally Recognized Testing Laboratory (NRTL) such as Underwriter's Laboratory (UL).
  - 3.1.2 Ensure that procedures are in place to conduct visual inspections of tools prior to use.
  - 3.1.3 If testing is required (e.g., GFCI testing before each use) procedures will be in place to ensure compliance.
  - 3.1.4 Ensure that employees using tools understand and follow manufacturer's instructions, routinely inspect tools, and use them only for the purpose for which they were designed.
  - 3.1.5 Be aware of and make available, as appropriate, ergonomically designed tools for repetitive tasks and for those jobs for which a job hazard analysis or ergonomic assessment indicates a need for such tools.
  - 3.1.6 Ensure that a maintenance program is in place to identify and repair defective or unsafe tools. Repairs to portable electrical tools may only be made by an authorized manufacturer's tool service/repair group or by the approved company sources.
  - 3.1.7 Training may be conducted as part of an apprenticeship program or in other recognized training forums.
  - 3.1.8 Employees who indicate they have had prior training will be required to demonstrate understanding and capabilities prior to being assigned to work.
  - 3.1.9 Retain manufacturer's instructions for training/reference purposes.

- 3.1.10 Ensure that periodic assessments and inspections of tools and tool use are performed.
- 3.2 Employees
  - 3.2.1 Use only company provided or approved tools. Tools brought from home must have prior permission from the company and may be subject to inspection.
  - 3.2.2 Attend training, as needed or required, for tool use.
  - 3.2.3 Report incidents, accidents or signs and symptoms of injury to your supervisor.

#### 4. Procedure

- 4.1 General Requirements
  - 4.1.1 No one will use an unsafe/defective tool. Tools that are damaged or defective will be removed from service.
  - 4.1.2 Hand and power tools that may generate sparks or high temperatures will not be used in areas that are hazardous due to the presence of flammable or combustible materials.
  - 4.1.3 The company is responsible for supplying proper power and specialized application tools for employee use.
  - 4.1.4 Only qualified/trained personnel will operate powder-actuated tools.
  - 4.1.5 Before a job is started, the supervisor or designee will ensure that the employee is fully aware of the hazards associated with the particular tool to be used.
  - 4.1.6 Either Ground Fault Circuit Interrupter (GFCI) Protection or an Assured Equipment Grounding Conductor Program will be provided for all 120V (or greater) powered tools.
  - 4.1.7 Adapters that interrupt the continuity of the equipment grounding conductor will not be used (e.g., 3-wire to 2-wire adapter.)
  - 4.1.8 Double-insulated tools do not require an equipment grounding conductor (3rd wire) in the cord, but they do require GFCI protection.
  - 4.1.9 Modifications will not be made to any tool or related equipment. Follow site or business unit established procedures when repairs are necessary.
  - 4.1.10 Do not abuse power cords or hoses. Never carry tools by the cord or hose or yank to disconnect. Protect cords and hoses from heat, oil, and sharp edges.

- 4.1.11 Cords and hoses will be routed in such a manner as to not create a tripping hazard.
- 4.2 Types of Tools Appropriate for Use
  - 4.2.1 Ensuring the type of tool is appropriate for the job requires:
    - 4.2.1.1 Recognition of applicable hazards associated with the work to be completed.
    - 4.2.1.2 Tool determination and additional requirements.
    - 4.2.1.3 Procedures for removal of a tool from service.
    - 4.2.1.4 Where tools are used which could present a hazard to anyone other than the user, all other employees will be instructed concerning hazards.
  - 4.2.2 Tool identification. Tools having identification numbers will be checked for legibility.
- 4.3 Pre-Use Safety
  - 4.3.1 Use the correct tool for the job.
  - 4.3.2 Remove adjusting keys and wrenches before connecting to the power supply.
- 4.4 Pre-Use Inspection
  - 4.4.1 Prior to each use, visually inspect all portable electric tools and accessories for damages or defects, per the following:
    - 4.4.1.1 Portable electric tools-check:
      - 4.4.1.1.1 Tool general condition.
      - 4.4.1.1.2 Cord for damage or deterioration.
      - 4.4.1.1.3 Cord grip tightness.
      - 4.4.1.1.4 Plug cap condition (grounding prong integrity).
      - 4.4.1.1.5 Inspect extension cords and equipment for loose parts and damaged cords.
      - 4.4.1.1.6 Portable GFCI's Test per manufacturer's specifications.
    - 4.4.1.2 Before using the tool, check workplace for nails, defects, or similar hazards/imperfections.

- 4.4.1.3 Attachment Plug/Connector Body/Cord; check for:
  - 4.4.1.3.1 General condition
  - 4.4.1.3.2 Cord grip tightness
  - 4.4.1.3.3 Grounding Prong integrity
  - 4.4.1.3.4 Polarization integrity
  - 4.4.1.3.5 Condition of outer cord jacket. Cord will not be spliced and must be replaced if outer jacket is damaged
  - 4.4.1.3.6 Boot and visible parts of body for damage, loose parts, or deterioration
  - 4.4.1.3.7 Portable lights-check
  - 4.4.1.3.8 Handle, guard and other visible parts for damage, loose parts or deterioration
  - 4.4.1.3.9 Lamp (should be rough-service type)
  - 4.4.1.3.10 Low voltage lights (12 volts) to ensure that transformer has not been by-passed. Check lamp voltage rating.
- 4.5 In-Use Safety
  - 4.5.1 Dress appropriately for the job
    - 4.5.1.1 Do not wear loose clothing or dangling jewelry.
    - 4.5.1.2 Confine long hair in a hair-net, cap, or fasten securely to the back of the head.
    - 4.5.1.3 Use extreme care when wearing gloves.
    - 4.5.1.4 Safety glasses are the minimum requirement when using any tool; additional PPE requirements may be necessary depending upon tool being used and job application (e.g., face shield, side shields, goggles, etc.)
    - 4.5.1.5 Use hearing protection if required.
  - 4.5.2 Use all tools per manufacturer's recommendations.
  - 4.5.3 Keep cutting tools in good condition. Sharpen/replace when necessary.

- 4.5.4 Never use fingers to pull or dislodge chips or turnings from tools or parts. Use pliers, rakes, or hooks.
- 4.5.5 In some areas, compressed gas lines have been installed for specific uses. Be sure that air powered tools are hooked up only to lines supplied for the purpose.
- 4.5.6 Do not set down or carry a portable power tool in any way so that the startingtrigger or button can be accidentally struck.
- 4.5.7 Appropriate precautions will be utilized when tools are used in a wet location (e.g., electrically insulated gloves).
- 4.6 Post-Use Safety
  - 4.6.1 Disconnect tools when not in use.
  - 4.6.2 Never lubricate, clean, repair, or adjust a tool while it is connected to a power source.
  - 4.6.3 After a job is finished, clean all scrap and debris from the work table and surrounding area. Use proper receptacles.
  - 4.6.4 Take care of all tools. Keep them sharp and clean. Follow manufacturer's instructions for lubricating, changing accessories, and inspection.
- 4.7 Repair
  - 4.7.1 All electric tool repairs will be made by a factory authorized tool repair service or company designated portable power tool repair service.
  - 4.7.2 The only exception is cord plugs and connector bodies that may be replaced by a qualified person with an electrical background. Upon completion of plug or body replacement, ground integrity will be tested.
  - 4.7.3 No repairs will be made to portable GFCIs.

#### 5. Safety Information

- 5.1 Specialized Applications
  - 5.1.1 Hand and power tools that may generate sparks or high temperatures will not be used in areas that are hazardous due to the presence of flammable or combustible materials. Use of non-sparking tools will be required unless monitoring ensures levels below 25% of the lower explosive limit (LEL). For more information, reference Portable Electronic Devices in Hazardous Areas.
  - 5.1.2 Training for use of a powder actuated tool is provided by the manufacturer (usually HILTI).

- 5.1.2.1 A license is issued after training; individuals using powder actuated tools must have the license on their person when using the tool.
- 5.1.2.2 A record of training will be kept in personnel training files or equivalent recordkeeping system.

#### 5.2 Power Tool Precautions

- 5.2.1 Power tools can be hazardous when improperly used. The company uses several types based on the power source they use such as electric, liquid fuel, hydraulic, pneumatic, and powder-actuated. The following precautions will be taken by employees to prevent injury.
  - 5.2.1.1 Power tools will always be operated within their design limitations.
  - 5.2.1.2 Eye protection, gloves, and safety footwear are recommended during operation.
  - 5.2.1.3 Store tools in an appropriate dry location when not in use.
  - 5.2.1.4 Work only in well illuminated locations.
  - 5.2.1.5 Tools will not be carried by the cord or hose.
  - 5.2.1.6 Cords or hoses will not be yanked to disconnect it from the receptacle.
  - 5.2.1.7 Cords and hoses will be kept away from heat, oils, and sharp edges or any other source that could result in damage.
  - 5.2.1.8 Tools will be disconnected when not in use, before servicing, and when changing accessories such as blades, bits, and cutters.
  - 5.2.1.9 Observers will be kept at a safe distance at all times from the work area.
  - 5.2.1.10 Work will be secured with clamps or a vice where possible to free both hands to operate tools.
  - 5.2.1.11 To prevent accidental starting, employees should be continually aware not to hold the start button while carrying a plugged in tool.
  - 5.2.1.12 Tools will be maintained in a clean manner and properly maintained in accordance with the manufacturer's guidelines.
  - 5.2.1.13 Ensure that proper shoes are worn and that the work area is kept clean to maintain proper footing and good balance.
  - 5.2.1.14 Ensure that proper apparel is worn. Loose clothing, ties, or jewelry can become caught in moving parts.

- 5.2.1.15 Tools that are damaged will be removed from service immediately and tagged "Do Not Use". They will be reported and turned over to the job site supervisor or Safety Officer for repair or replacement.
- 5.2.1.16 Cracked saws. All cracked saws will be removed from service.
- 5.2.1.17 Grounding. Portable electric power tools will meet the electrical requirements of this safety program and 29 CFR 1910.331 335.
- 5.2.1.18 Compressed air used for cleaning. Compressed air will not be used for cleaning purposes except where reduced to less than 30 p.s.i. and then only with effective chip guarding and personal protective equipment.
- 5.3 Methods of Guarding
  - 5.3.1 One or more methods of guarding will be provided where required to protect the operator and other employees in the area from hazards such as those created by point of operation, in-running nip points, rotating parts, flying chips and sparks. Examples of guarding methods are barrier guards, two-hand tripping devices, electronic safety devices, etc. The guard will be such that it does not offer an accident hazard in itself. Employees will:
    - 5.3.1.1 Inspect tools without guards for signs of guard removal. If it is evident that a guard is required, tag-out the tool and obtain a replacement. Tools will not be energized during inspection.
    - 5.3.1.2 Inspect tools having guards for proper operation and maintenance prior to use. Tools will not be energized during inspection.
    - 5.3.1.3 Never remove a guard during use.
- 5.4 Self Assessment:

Each division/work unit should conduct a self-assessment to assess compliance with this standard and develop action plans to correct deficiencies. See Section 6 for more information.

#### 6. Training and Information

- 6.1 Powder Actuated Tools
  - 6.1.1 Users of powder-actuated tools must be licensed and trained.
  - 6.1.2 Training may be conducted as part of an apprenticeship program or in other recognized training forums.
  - 6.1.3 Employees who indicate they have had prior training will be required to demonstrate understanding and capabilities prior to being assigned to work.

- 6.1.4 Manufacturer's instructions will be retained for training/reference purposes.
- 6.2 Initial and Re-Training
  - 6.2.1 This safety program will be provided to and read by all employees receiving training. Training will be conducted on an as needed basis or when the following conditions are met:
    - 6.2.1.1 Re-training will be provided for all authorized and affected employees whenever (and prior to) there being a change in their job assignments, a change in the type of tools used, or when a known hazard is added to the work environment.
    - 6.2.1.2 Additional re-training will also be conducted whenever a periodic inspection reveals (or whenever there is sufficient reason to believe) there are deviations from or inadequacies in the employee's knowledge or use of tools.
    - 6.2.1.3 The re-training will reestablish employee proficiency and introduce new or revised methods and procedures, as necessary.
- 6.3 Verification

The company will verify that employee training has been accomplished and is being kept up to date. The documentation will contain each employee's name and dates of training.

## 7. Definitions

Powder Actuated Tools – A tool that uses an explosive charge to drive a bolt or nail. Normally used in concrete construction or steel erection. Electrically powered nail guns are not considered a powder actuated tool. This page intentionally left blank.

# HAND AND PORTABLE POWER TOOL GUARDING AND SAFETY REQUIREMENTS

#### Table Of Contents

Portable Circular Saws Power Abrasive Wheel Tools Vertical Portable Grinders Portable Belt Sanding Machines Pneumatic Power Tools and Hoses Explosive Actuated Fastening Tools Power Lawn Mowers Jacks

#### • Portable Circular Saws

- All portable, power-driven circular saws having a blade diameter greater than 2 in. will be equipped with guards above and below the base plate or shoe.
- The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. (Does not apply to circular saws used in the meat industry for meat cutting purposes).
- For authorized use the following conditions must be met.
  - An upper guard must cover the entire blade of the saw.
  - A retractable lower guard must cover the teeth of the saw.
  - Except when it makes contact with the work material, the lower guard must automatically return to the covering position when the tool is withdrawn from the work.

#### Power Abrasive Wheel Tools

- Abrasive wheels shall be used only on tools/equipment provided with safety guards. (A safety guard is an enclosure designed to restrain the pieces of the grinding wheel and furnish all possible protection in the event that the wheel is broken in operation.)
  - Exceptions. These requirements do not apply to the following classes of wheels and conditions:
    - Wheels used for internal work while within the work being ground.
    - Mounted wheels used in portable operations 2 inches and smaller in diameter. Mounted wheels, usually 2 inch diameter or smaller, and of various shapes, may be either organic or inorganic bonded abrasive wheels. They are secured to plain or threaded steel mandrels. (Organic wheels are wheels which are bonded by means of an organic material such as resin, rubber, shellac, or other similar bonding agent.)
    - Types 16, 17, 18, 18R, and 19 cones, and plugs, and threaded-hole pot balls where the work offers protection.
- Guard covers. Employees will ensure that a safety guard covers the spindle end, nut, and flange projections. The safety guard shall be mounted so as to maintain proper alignment with the wheel and the strength of the fastenings shall exceed the strength of the guard.
  - Exception. Safety guards on all operations where the work provides a suitable measure of protection to the operator may be so constructed that the spindle end, nut, and outer flange are exposed. Where the nature of the work is such as to entirely cover the side of the wheel, the side covers of the guard may be omitted.
  - Exception. The spindle end, nut, and outer flange may be exposed on portable machines designed for and used with type 6, 11, 27, and 28 abrasive wheels, cutting off wheels, and tuck pointing wheels. (Tuck pointing wheels, usually Type 1, are reinforced organic bonded wheels which have diameter, thickness and hole size dimension. They are subject to the same limitations of use and mounting as Type 1 wheels. Limitation: Wheels used for tuck pointing should be reinforced, organic bonded. Tuck pointing is the removal, by grinding, of cement, mortar, or other nonmetallic jointing material. The term reinforced as applied to grinding wheels shall define a class of organic wheels which contain strengthening fabric or filament. The term reinforced does not cover wheels using such mechanical additions as steel rings, steel cup backs or wire or tape winding.)
  - Type 1 straight wheels have diameter, thickness, and hole size dimensions and should be used only on the periphery. Type 1 wheels shall be mounted between flanges. Limitation: Hole dimension (H) should not be greater than two-thirds of wheel diameter dimension (D) for precision, cylindrical, center-less, or surface grinding applications. Maximum hole size for all other applications should not exceed one-half wheel diameter.

10

- Cup wheels. Cup wheels (Types 6 and 11) shall be protected by:
  - Safety guards as specified.
  - Special "revolving cup guards" which mount behind the wheel and turn with it. They shall be made of steel or other material with adequate strength and shall enclose the wheel sides upward from the back for one-third of the wheel thickness. The mounting features shall conform to all regulations. It is necessary to maintain clearance between the wheel side and the guard. The clearance shall not exceed one-sixteenth.
  - Type 6 cup wheels have specific diameter, thickness, hole-sizes, rim thickness, and back thickness dimensions. Grinding is always performed on rim face, W dimension. Limitation: Minimum back thickness, E dimension, should not be less than one-fourth T dimension. In addition, when unthreaded hole-wheels are specified, the inside flat, K dimension, must be large enough to accommodate a suitable flange.
  - Type 11 flaring cup wheels have double diameter dimensions D and J, and in addition have thickness, hole size, rim and back thickness dimensions. Grinding is always performed on rim face, W dimension. Type 11 wheels are subject to all limitations of use and mounting listed for Type 6 straight sided cup wheels definition
- General safety precautions.
  - Before being mounted it should be inspected closely and sound- or ring- tested to be sure that it is free from cracks or defects. To test, wheels should be tapped gently with a light non-metallic instrument. If they sound cracked or dead they could fly apart in operation and so must not be used. A sound and undamaged wheel will give a clear metallic tone or ring.
  - Employees will not locate themselves directly in front of the wheel as it accelerates to full operating speed.
  - Employees will always use eye protection.
  - Power will be turned off when not in use.
  - Hand held grinders are never placed in vises.
  - Mounting and inspection of abrasive wheels.
    - Immediately before mounting, all wheels shall be closely inspected and sounded by the user using the ring test to make sure they have not been damaged in transit, storage, or otherwise. The spindle speed of the machine shall be checked before mounting of the wheel to be certain that it does not exceed the maximum operating speed marked on the wheel.
    - Grinding wheels shall fit freely on the spindle and remain free under all grinding conditions. A controlled clearance between the wheel hole and the machine spindle (or wheel sleeves or adaptors) is essential to avoid excessive pressure from mounting and spindle expansion. To accomplish this, the machine spindle shall be made to nominal (standard) size plus zero minus .002 inch, and the wheel hole shall be made suitably oversize to assure safety clearance under the conditions of operating heat and pressure.
    - All contact surfaces of wheels, blotters, and flanges shall be flat and free of foreign matter.
    - When a bushing is used in the wheel hole it shall not exceed the width of the wheel and shall not contact the flanges.
    - Excluded machinery. Natural sandstone wheels and metal, wooden, cloth, or paper discs having a layer of abrasive on the surface are not covered by these requirements.

#### Vertical Portable Grinders

- Supervisors will ensure all employees are thoroughly familiar with and use strict work practices in accordance with the manufacturer instructions. Safety guards used on machines known as right angle head or vertical portable grinders shall have a maximum exposure angle of 180 and the guard shall be located between the operator and the wheel during use. Adjustment of guard shall be such that pieces of an accidentally broken wheel will be deflected away from the operator. (See 29 CFR 1910.243, Figure P-4.)
- Other portable grinders. The maximum angular exposure of the grinding wheel periphery and sides for safety guards used on other portable grinding machines shall not exceed 180 and the top half of the wheel shall be enclosed at all times.
- Portable grinding is a grinding operation where the grinding machine is designed to be hand held and may be easily moved from one location to another.

#### Portable Belt Sanding Machines

 Supervisors will ensure that all belt sanding machines used by their personnel be provided with guards at each nip point where the sanding belt runs onto a pulley. These guards will effectively prevent the hands or fingers of the operator from coming in contact with the nip points. The unused run of the sanding belt shall be guarded against accidental contact.

11

#### • Pneumatic Power Tools and Hoses

- Supervisors will ensure all employees are thoroughly familiar with and use strict work practices in accordance with the manufacturer instructions. Prior to use the following requirements will be complied with:
- Tool retainer. A tool retainer will be installed on each piece of utilization equipment which, without such a retainer, may eject the tool.
- Air-hoses. Hose and hose connections used for conducting compressed air to utilization equipment will be compatible with the pressure and service to which they are subjected.

#### Explosive Actuated Fastening Tools

- General safety precautions: Supervisors will ensure all employees are thoroughly familiar with and use strict work practices in accordance with the manufacturer instructions.
  - Operators and assistants using tools shall be safeguarded by wearing eye protection.
  - Head and face protection shall be used as required by working conditions.
  - Before using a tool, the employee will inspect it to determine to his satisfaction that it is clean, that all
    moving parts operate freely, and that the barrel is free from obstructions.
  - When a tool develops a defect during use, the operator shall immediately cease to use it until it is properly repaired.
  - Tools will not be loaded until just prior to the intended firing time. Neither loaded nor empty tools are to be pointed at any workmen.
  - No tools shall be loaded unless being prepared for immediate use and will not be left unattended.
  - Misfire instructions (general).
    - $\circ$  Know the manufacturers instructions.
    - $_{\odot}$  Hold the tool in the operating position for at least 30 seconds.
    - $\circ$  Try to operate the tool a second time.
    - Wait another 30 seconds, holding the tool in the operating position; then proceed to remove the explosive load in strict accordance with the manufacturer instructions.
  - A tool will never be left unattended in a place where it would be available to unauthorized persons.
  - Fasteners will not be driven into very hard or brittle materials including but not limited to cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick, or hollow tile.
  - Driving into materials easily penetrated will be avoided unless such materials are backed by a substance that will prevent the pin or fastener from passing completely through and creating a flying-missile hazard on the other side.
  - Low-velocity tools. Only tools meeting the design specifications of 29 CFR 1910.243 will be used. Employees contemplating purchase of low-velocity tools will consult the OSHA Regulatory Standard before final tool selection. The manufacturer's inspection criteria will be followed for pre-use inspection.
  - Low-velocity piston type tools. Only tools meeting the design specifications of 29 CFR 1910.243 will be used. Employees contemplating purchase of low-velocity piston type tools will consult the OSHA Regulatory Standard before final tool selection. The manufacturer's inspection criteria will be followed for pre-use inspection.
    - A low-velocity piston tool is a tool that utilizes a piston designed to be captive to drive a stud, pin, or fastener into a work surface. It will not cause such stud, pin, or fastener to have a mean velocity in excess of 300 feet per second when measured 6.5 feet from the muzzle end of the barrel.
    - Fasteners will not be driven directly into materials such as brick or concrete closer than 3 inches from the unsupported edge or corner or into steel surfaces closer than one-half inch from the unsupported edge or corner, unless a special guard, fixture, or jig is used. (Exception: Low-velocity tools may drive no closer than 2 inches from an edge in concrete or one-fourth inch in steel.)
    - When fastening other materials, such as a 2X4 inch wood section to a concrete surface, it is permissible to drive a fastener of no greater than 7/32 inch shank diameter not closer than 2 inches from the unsupported edge or corner of the work surface.
    - Fasteners will not be driven through existing holes without positive guides for accurate alignment.
    - No fastener will be driven into a spalled area caused by an unsatisfactory fastening.
    - $_{\odot}\,$  Tools will not be used in an explosive or flammable atmosphere.
    - All tools will be used with the correct shield, guard, or attachment recommended by the manufacturer. Protective shields or guards are devices or guards attached to the muzzle end of the tool, which is designed to confine flying particles
    - Any tool found not in proper working order will be immediately removed from service and turned over to the job site supervisor for repair in accordance with the manufacturer's specifications.

 High-velocity tools. Only tools meeting the design specifications of 29 CFR 1910.243 will be used. Employees contemplating purchase of high-velocity tools will consult the OSHA Regulatory Standard before final tool selection. The manufacturer's inspection criteria will be followed for pre-use inspection.

- High-velocity tools are tools or machines which, when used with a load, propels or discharges a stud, pin, or fastener, at velocities in excess of 300 feet per second when measured 6.5 feet from the muzzle end of the barrel, for the purpose of impinging it upon, affixing it to, or penetrating another object or material. (A stud, pin, or fastener is a fastening device specifically designed and manufactured for use in explosive-actuated fastening tools.)
- A hammer-operated piston tool--low-velocity type, is a tool which, by means of a heavy mass hammer supplemented by a load, moves a piston designed to be captive to drive a stud, pin, or fastener into a work surface, always starting the fastener at rest and in contact with the work surface.

#### Power Lawnmowers

- Supervisors will ensure all employees are thoroughly familiar with and use strict work practices in accordance with the manufacturer instructions. General requirements:
- Power lawnmowers will have power-driven chains, belts, and gears so positioned or otherwise guarded to prevent the operator's accidental contact therewith during normal starting, mounting, and operation of the machine.
- A shutoff device will be provided to stop operation of the motor or engine. This device will require manual and intentional reactivation to restart the motor or engine.
- All positions of the operating controls will be clearly identified.
- The words "Caution. Be sure the operating control(s) is in neutral before starting the engine" shall be clearly visible at an engine starting control point on self-propelled mowers.
- The mower blade will be enclosed except on the bottom and the enclosure shall extend to or below the lowest cutting point of the blade in the lowest blade position.
  - Guards which must be removed to install a catcher assembly will be affixed to the mower near the opening stating that the mower will not be used without either the catcher assembly or the guard in place.
  - The word "Caution" (or stronger wording) will be placed on the mower at or near each discharge opening.
  - Proper precautions will be taken when refueling mowing equipment.
  - Mowing equipment will never be left unattended while running.
  - Will constantly be mindful of persons working near the operation of the mower.
- Jacks
  - Jack. A jack is an appliance for lifting and lowering or moving horizontally a load by application of a pushing force. Jacks may be either lever and ratchet or screw and hydraulic types.
  - The operator will make sure that the jack used has a rating sufficient to lift and sustain the load. The rating
    of a jack is the maximum working load for which it is designed to lift safely that load throughout its specified
    amount of travel.
    - To raise the rated load of a jack, the point of application of the load, the applied force, and the length of lever arm should be those designated by the manufacturer for the particular jack considered.
  - The rated load will be legibly and permanently marked in a prominent location on the jack by casting, stamping, or other suitable means.
  - In the absence of a firm foundation the base of the jack will be blocked. If there is a possibility of slippage of the cap, a block shall be placed in between the cap and the load.
  - The operator will watch the stop indicator, which shall be kept clean, in order to determine the limit of travel. The indicated limit will never be overrun.
  - After the load has been raised, it will be cribbed, blocked, or otherwise secured at once.
  - Hydraulic jacks exposed to freezing temperatures shall be supplied with adequate antifreeze liquid.
  - All jacks shall be properly lubricated at regular intervals.

# TRAINING ATTENDANCE ROSTER HAND AND PORTABLE POWER TOOLS

Hand and Portable Power Tool Training Includes:

- General Requirments
- Types of Tools
- Hazards
- Protection and Guarding
- Abrasive, Electric, Pneumatic and Powder Actuated Tools, and Jacks

INSTRUCTOR:	<u>DATE:</u>	LOCATION:		
NAME (Please Print)	SIGNATURE			
FIRST - MI - LAST				
By signing below, I attest that I have attended the safety training for the topic indicated, and will abide by the safety information, procedures, rules, regulations and/or company policy as presented and instructed				

Name of Interpreter, if utilized:

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Hazard Communication

## PROGRAM OVERVIEW

# HAZARD COMMUNICATION SAFETY PROGRAM

REGULATORY STANDARD: OSHA - 29 CFR 1910.1200

#### INTRODUCTION

The Hazard Communication Standard requires employers to inform employees of the hazards and identities of workplace chemicals to which they are exposed. This program specifies the requirements for evaluation of chemical hazards in the workplace and establishes means for communicating hazard information to all affected workers including chemical Safety Data Sheets (SDS), labeling, a Written Hazard Communication Program, employee training and communication requirements for contractors and vendors.

#### TRAINING

- Employees and contractors must be made aware of the hazards they may encounter and the precautions they must take to protect themselves from these hazards.
- Employees or contractors must be trained on initial assignment and whenever any new physical, chemical or health hazards are introduced, when non-routine tasks or procedures are required, or when employees are working with or near unlabeled piping systems that contain hazardous chemicals.

#### ACTIVITIES

- Determine if hazardous chemicals are present in the workplace
- Ensure the availability of a SDS for each hazardous chemical or mixture in the workplace
- Ensure a Hazardous Chemical List is maintained
- Evaluate the hazards for each chemical or mixture used and/or stored in the workplace
- Ensure proper labeling of chemical containers in accordance with Globally Harmonized System (GHS) requirements.
- Complete the Written Hazard Communication Program
- Employees trained
- Process to evaluate and document any new hazards or changes

#### FORMS

- Hazardous Chemical List
- Training Attendance Roster
- Written Hazard Communication Program

#### **Table of Contents**

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training Information & Requirements
- 7. Definitions

# HAZARD COMMUNICATION PROGRAM

- 1. **Purpose.** To provide an effective, written hazard communication program in compliance with company, State and Federal regulatory requirements. Hazard Communication applies to all chemicals and mixtures purchased, manufactured, used, and/or stored by the company to which employees, contractors, tenants or visitors may be exposed. (Laboratories, as defined by OSHA regulations, are not covered under this program.)
- **2. Scope.** This program applies to all operations at company facilities and job-sites. This program does not apply to articles, food or beverage items. Consumer products are exempt if they are used at the same frequency, duration, and concentration as home use.

#### 3. Responsibilities.

- 3.1 Management must:
  - 3.1.1 Perform a hazard determination. The company is required to determine the hazards of any products or chemicals they manufacture and/or sell.
  - 3.1.2 Ensure a Hazardous Chemical List is maintained either for the company as a whole, or for each department or work area.
  - 3.1.3 Evaluate the hazards for each chemical or mixture used or stored in the workplace.
  - 3.1.4 Maintain a Written Hazard Communication Program.
  - 3.1.5 Assure labels and other forms of warning are affixed to chemical containers, as appropriate, meeting Globally Harmonized System (GHS) label requirements.
  - 3.1.6 Train and inform employees on initial assignment and whenever a new physical, chemical or health hazard is introduced into the workplace, or when non-routine tasks or procedures are required.
  - 3.1.7 Develop and implement a method of communication between any contractors and the company which describes and outlines.
- 3.2 Employees must:
  - 3.2.1 Attend Hazard Communication Training upon initial assignment, and when changes to the workplace hazards occur (through process changes or a change of work assignment).
  - 3.2.2 Re-label any containers into which hazardous chemicals or mixtures are transferred.

3.2.3 Inform management of any changes to chemicals or chemical uses.

### 4. Procedure.

- 4.1 Determine if hazardous chemicals are present in the workplace.
- 4.2 <u>Written Hazard Communication Program</u> (See the included form for the Written Hazard Communication Program.) This program must contain or describe:
  - 4.2.1 A list of hazardous chemicals
  - 4.2.2 Criteria and Label information
  - 4.2.3 Safety Data Sheets (SDS)
  - 4.2.4 Employee information and training
  - 4.2.5 Procedures for evaluating the hazards of any non-routine tasks (e.g. one-time chemical uses) and for evaluating any unlabeled pipes in the work area that contain hazardous chemicals.
  - 4.2.6 Multi-employer workplaces (Provisions for contractors)
- 4.3 <u>Hazardous Chemical List</u> (See the included Form for a Hazardous Chemical List)

Create a list of all hazardous chemicals used in the workplace. If necessary, use the chemical SDSs to determine whether or not a chemical is a hazardous chemical.

- 4.4 Chemical Labeling
  - 4.4.1 <u>Manufacturer/GHS Compliant labeling</u>: All containers must be labeled with the product identifier, signal word, hazard statement, pictogram(s), precautionary statement, and manufacturer name, address, and phone number. Such labels may not be defaced or covered.
  - 4.4.2 <u>Workplace labeling</u>: May be used for process materials and must contain the chemical identity and appropriate hazard warnings.
  - 4.4.3 <u>Portable Container labels</u>: should be on all containers at all times. However, labels are not required for portable containers provided they are immediately used by the employee on that work-shift *and* remain in the direct control of the employee at all times.
  - 4.4.4 All labels must be in legible English. Other languages may be used, provided a label in English is also provided.

4.4.5 Pipes or piping systems that contain a hazardous chemical shall be identified to employees by at least one (1) readily accessible label, sign, placard, written operating instructions, process sheet, batch ticket or substance identification system.

#### 4.5 <u>Safety Data Sheets</u>

- 4.5.1 Ensure the availability of a SDS for each hazardous chemical or mixture in the workplace and are:
  - 4.5.1.1 Readily accessible and available by employees on each work shift
  - 4.5.1.2 Written in English
  - 4.5.1.3 Obtained from the manufacturer or supplier of the chemical or material before it is used at the workplace, if one did not accompany the shipment
  - 4.5.1.4 Kept for the duration of its use or storage, at a minimum, and for 30 years after discontinuing chemical use.
- 4.5.2 SDSs are prepared by the chemical manufacturer following the GHS requirements.
- 4.6 <u>Multi-employer workplaces</u> (Provisions for contractors) must be informed about:
  - 4.6.1.1 Onsite access to and maintenance of a current SDS
  - 4.6.1.2 Labeling procedures
  - 4.6.1.3 Protective and precautionary measures
- 4.7 Maintain a process to evaluate and document any new hazards or changes to the workplace that would affect the above requirements, including any non-routine tasks or procedures, or unlabeled piping systems that contain hazardous chemicals.

#### 5. Safety Information

<u>Trade Secret Information</u> - Trade Secrets are products which, when the chemical identity of the product is revealed, would jeopardize the manufacturer's competitive advantage. Trade secret materials (and requests to reveal trade secret information) must comply with the requirements of OSHA 1910.1200(i) and Appendix D.

#### 6. Training and Information

6.1 Employees must be trained on initial assignment and whenever any new physical, chemical or health hazards are introduced, when non-routine tasks or procedures are required, or when employees are working with or near unlabeled piping systems that contain hazardous chemicals.

#### 6.2 Training includes

- 6.2.1 Identification of the work areas where hazardous chemicals are used.
- 6.2.2 The location and availability of the written program, hazardous chemical list, and SDSs.
- 6.2.3 Information on the methods and observations used to detect the presence or release of chemicals (monitors, alarm systems, odors, visual appearance, etc.) including any "non-routine" tasks that employees may be asked to periodically perform which are beyond their regularly assigned duties.
- 6.2.4 The physical, health, simple asphyxiation, combustible dust, and pyrophoric gas hazard information of the chemicals present
- 6.2.5 The measures employees can take to protect themselves from identified chemical hazards (procedures, personal protective equipment, etc.)
- 6.2.6 The labeling system used in the workplace
- 6.2.7 The details of the Written Hazard Communication Program

## 7. Definitions

- Hazard Statement statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.
- Laboratory A facility where relatively small quantities of hazardous chemicals are used on a non-production basis. The following conditions must be met:
  - Chemical manipulations are carried out on a "laboratory scale"
  - Multiple chemical procedures or chemicals are used
  - The procedures involved are not part of a production process, nor in any way simulate a production process
  - "Protective laboratory practices and equipment" are available and in common use to minimize the potential for employee exposure to hazardous chemicals
- Pictogram a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.
- Precautionary statement- a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.
- Process Materials Chemicals that are routinely used in a chemical process or as part of a mixture for a chemical process.

- Product Identifier the name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical.
- Safety Data Sheets (SDS) reference documents that outline the product information, hazards and other required elements for hazardous chemicals or materials. These documents are produced by the manufacturer of the chemical or material and must be maintained at any workplace where they are used or stored.
- Signal Word a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

HAZARDOUS CHEMICAL LIST			
Name of Chemical (as it appears on the SDS or Chemical Label)	<b>Common Name</b> (what this company calls the material – if different than the SDS)	Manufacturer or Supplier Name	Manufacturer Emergency Contact Information Or Phone Number

Completed by: \_\_\_\_\_

Date: \_\_\_\_\_

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TRAINING ATTENDANCE ROSTER HAZARD COMMUNICATION         Hazard Communication Training Includes:         • General Requirements and Right To Know/Understand         • Types and Format of Chemical Labels including GHS format         • Chemical Hazard Categories and Hazards         • SDS overview         • Chemical Spill Response         • Exposure Incident Reporting				
NAME (Please Print) FIRST - MI - LAST	SIGNATURE			
the safety information, procedures, rules, regulations a	and/or company policy as pr	resented and instructed		

Name of Interpreter, if utilized:

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# WRITTEN HAZARD COMMUNICATION PROGRAM

The purpose of this written program is to document how the Hazard Communication requirements are met.

#### General:

is responsible for the initial and ongoing activities to keep this Hazard Communication Program current.

The location of the written program is: \_\_\_\_\_

The location of the list of hazardous chemicals is:

The location of the Safety Data Sheets (SDSs) is:

The list of hazardous chemicals, the written program, and the SDSs are required to be accessible to employees at all times. If electronic access is provided, describe the process for accessing this information: \_\_\_\_\_\_.

If an SDS is not received at the time of purchase or shipment, an SDS will be obtained either through the manufacturer's website, by calling the manufacturer or supplier, or by writing the company. If the SDS is not available, OSHA may be contacted or notified.

\_\_\_\_\_ is responsible for ensuring that SDSs are received.

#### Hazard Warning Labels:

Original manufacturer's labels are general used to ensure updated information on chemical hazards is made available.

is responsible for ensuring that all hazardous chemicals in the workplace have appropriate labels (original manufacturer's labels, or written/printed labels (such as HMIS, NFPA or NAFTA code labels) affixed by our company. If alternative systems to the hazard warning statements are used, describe the system used:

is responsible for ensuring any containers shipped or taken off our company premises have appropriate labels, which include the identity of the chemical, appropriate hazard warning statements, and the name and address of manufacturer or responsible party.

#### SDS for Company Made or Manufactured Chemicals:

\_\_\_\_\_\_ is responsible for ensuring that SDSs are created and written for every hazardous chemical that the company makes, mixes or manufactures.

\_\_\_\_\_\_ is responsible for ensuring that any SDSs are shipped to another company who purchases or is provided with our company-specific chemicals or mixtures.

#### Non-Routine Tasks and Unlabeled Pipes:

is responsible for ensuring that any **new or non-routine tasks** are identified and training is appropriately provided. SDSs and chemical label reviews are used as part of this hazard evaluation and identification.

The methods used to inform employees of the hazards of **non-routine tasks**, and the hazards associated with chemicals contained in **unlabeled pipes** in their work areas are as follows:

#### Contractors:

\_\_\_\_\_\_ is responsible for supplying an SDS, upon request. Contractors working at our sites or locations will be provided with an SDS for any chemical used or stored at the facility, upon request. Describe the methods used to provide on-site access to SDS:

Describe how you communicate information about your labeling system, if different than that used by contractors or subcontractors for types of labeling:

Methods used to inform any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies:

#### Off-Site Work:

Employees working at other sites may request an SDS for any chemical they may be exposed to. During training or orientation, our employees are informed of how to request information on the elements of that location's written hazard communication program, including Safety Data Sheet information, labeling, non-routine work hazards and unlabeled pipes.

\_ is responsible for ensuring that this occurs, as needed.

#### Information and Training:

\_\_\_\_ is responsible for identifying employees who need training.

\_ is responsible for conducting training upon initial assignment.

The hazard communication training must cover the following items, at a minimum:

- Information on the operations where hazardous chemicals are present
- The location and availability of this written program, list of hazardous chemicals, and SDS
- How to detect releases of hazardous chemicals (monitoring equipment, visual determination, odor, equipment sensors, etc).
- The physical and health hazards of chemicals in the work area, including any unlabeled chemical pipes.
- The measures that employees can take to protect themselves from these hazards.

The details of the Hazard Communication Program, including the explanation of the labeling system and SDS.

\_\_\_\_ is responsible for ensuring that these elements are covered in the training

program.

Completed by: \_\_\_\_\_

Date: \_\_\_\_\_

Personal Protective Equipment

### PROGRAM OVERVIEW

# PERSONAL PROTECTIVE EQUIPMENT SAFETY PROGRAM

REGULATORY STANDARD: 29 CFR §1910.132-138

#### INTRODUCTION

Personal protective equipment (PPE), when its use is required, must be provided and used by employees. PPE should only be used where engineering and work practice controls are not sufficient to prevent exposure to a hazard. The type of personal protective equipment and the reasons for its use must be documented. Where required, employees must be trained in how to use the equipment, reasons for its use, the care and maintenance of the equipment and disposal considerations.

#### TRAINING

- Training and information is required for employees who use PPE.
- Additional training is required for specific types and uses of PPE (respirators, hearing protection, etc.)

#### ACTIVITIES

- Conduct and document a Hazard Assessment
- Provide protective equipment, as required
- Ensure employees are trained in the use, care and maintenance of the equipment

#### FORMS

- Certification of Hazard Assessment
- Information for Filtering Facepiece (Dust Mask) Use
- Training Attendance Roster

#### **Table of Contents**

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

#### PERSONAL PROTECTIVE EQUIPMENT (PPE) SAFETY PROGRAM

- 1. **Purpose.** Personal Protective Equipment (PPE) shall be used in areas where there is potential exposure to hazards which cannot be adequately controlled by elimination, substitution, engineering methods or administrative controls. PPE is to be considered the last line of defense against exposure to chemical hazards, radiation hazards, biological agents, temperature extremes, noise, electrical energy, mechanical forces, irritants, or projectiles which can produce injury or illness. This defines the required elements for implementing a PPE program.
  - 1.1 Exclusions: PPE requirements for hearing conservation, fall protection, cartridge type respiratory protection, eyewash/safety shower, and electrical work are covered in separate, specific standards. Back Belts and Wrist Braces used in mitigation of ergonomic disorders as part of an ergonomics evaluation are not considered PPE.
- **2. Scope.** Applies to any area where Personal Protective Equipment is required or used by company employees.

#### 3. Responsibilities

- 3.1 Management
  - 3.1.1 Conduct and document a Hazard Assessment of the workplace.
  - 3.1.2 Select the appropriate PPE to reduce or eliminate hazards, based on the types of tasks and activities performed at the company.
  - 3.1.3 Maintain PPE or provide employees with the proper training and tools to maintain PPE used at the company.
  - 3.1.4 Best practice is to post signs to inform employees where PPE is required.
  - 3.1.5 Provide appropriate protective equipment to employees, visitors or other personnel, as needed or required. The employer is not required to pay for steel-toe shoes and prescription safety glasses (if allowed to be worn off the job), logging boots, everyday clothing, normal work boots, winter coat, sunglasses, and sunscreen.
  - 3.1.6 Provide training to each employee who is required to use PPE.

#### 3.2 Employees

- 3.2.1 Wear PPE as required and trained.
- 3.2.2 Maintain PPE, as required by this program
- 3.2.3 Report concerns, issues or violations of this program to Supervisors or management.

### 4. Procedure

- 4.1 Certification of Hazard Assessment
  - 4.1.1 Conduct a hazard assessment of the workplace to identify the hazards associated with each job task or facility.
  - 4.1.2 A Certification of Hazard Assessment shall be completed as verification that a hazard assessment was performed. The "certification document" may be completed by job task or operation, for buildings, or for organizations. If you do not use the provided form for this purpose, your documentation must specifically be identified as a "Certification of Hazard Assessment", and contain all the required elements (person certifying, date, location evaluated)
    - 4.1.2.1 This document shall be updated for changes to operating procedures, when the method of performing the job changes and/or when incident investigations determine those PPE modifications are necessary.
- 4.2 PPE Selection
  - 4.2.1 Obtain the appropriate PPE. Selected PPE may include: eye and face, hand and arm, foot, head, torso and body protection, etc.
    - 4.2.1.1 The type of PPE must protect against the hazards identified.
    - 4.2.1.2 Inform affected employees of the PPE they are required to wear.
    - 4.2.1.3 Selected PPE must fit each affected employee.
    - 4.2.1.4 For chemical protective clothing, manufacturer information is maintained by the company. For suits, gloves, apron, eyewear/goggles generic chemical permeation data (what the item is resistant to or not resistant to for general groupings of chemicals) will be maintained.
- 4.3 Access to and Maintenance of PPE
  - 4.3.1 Ensure adequate supplies, storage, and employee access to PPE when required for a specific work area or operation.
  - 4.3.2 PPE must be maintained in a sanitary and reliable condition. Ensure that damaged or defective PPE is taken out of service and not used, and that contaminated clothing and PPE are disposed of or cleaned properly.

### 5. Safety Information

- 5.1 Types of PPE and Their Use(s)
  - 5.1.1 Eye and Face Protection
    - 5.1.1.1 Safety glasses. Goggles, and face shields are designed to protect the eyes and/or face of individuals who may be exposed to flying particles, molten metal, liquid chemicals, acid or caustic liquids, chemical gases or vapors, etc.
    - 5.1.1.2 Only safety glasses and face protection meeting ANSI Z87 requirements shall be worn.
    - 5.1.1.3 In special applications, such as welding or laser operations, helpers shall be protected to the same level as the operator.
    - 5.1.1.4 Individuals, who work on or near exposed electrically energized circuit parts, at 50 volts and above, shall wear non-conductive eyewear. Non-conductive eyewear is also necessary for individuals exposed to electrical burn hazards (e.g.: working on systems less than 50 volts, but with high current levels such as electroplating systems, large capacity batteries, etc.). Metal frame glasses are not permitted for these activities.
    - 5.1.1.5 Where contact lenses are permitted, they shall be worn with required PPE appropriate to the exposure. Safety non-prescription glasses shall be available to wearers of contact lenses.
  - 5.1.2 Gloves and Hand Protection
    - 5.2.2.1 Gloves, gauntlets, and protective sleeves are designed to protect the hands and arms of individuals who may be exposed to skin contact and/or absorption of chemical or biological agents, cuts or lacerations, abrasions, punctures, chemical burns, thermal burns, or harmful temperature extremes. Materials used in the manufacture of clothing must be resistant to the chemicals or materials being handled.
    - 5.2.2.2 Gloves shall be removed properly so as not to exposed an unprotected hand or part of the arm.
    - 5.2.2.3 After removing gloves, hands should be thoroughly washed with soap and water.
    - 5.2.2.4 Disposable gloves shall be disposed of at the end of each use. Chemical contact, signs of physical wear, or loss of glove integrity shall require more frequent disposal.
5.2.2.5 Latex Gloves: Due to the increasing concerns with latex gloves and associated skin reactions, latex gloves may be selected based on latex content, protein content (usually <50ug/g) or other requirements based on employee needs. Gloves may be required to be powdered or powder-free, depending upon the needs of the business activities.

#### 5.2.2 Foot Protection

- 5.2.3.1 Foot protection is designed to protect the foot when working in areas where there is a danger of foot injuries due to falling or rolling objects, objects piercing the sole, and exposure to electrical hazards.
- 5.2.3.2 Where safety shoes are required, only foot protection meeting ANSI Z41 requirements shall be worn.
- 5.2.3.3 Electricians should select shoes rated for electrical hazards and/or use insulating mats when working on or near energized equipment.
- 5.2.4 Head Protection
  - 5.2.4.1 Head Protection is designed to provide protection against impact and penetration from falling or stationary objects. They also may provide protection against electrical shock and burns caused when coming in contact with energized parts.
  - 5.2.4.2 Where head protection is required, only Head protection meeting ANSI Z89 requirements shall be worn.
  - 5.2.4.3 Types of Head Protection
    - 5.2.4.2.1 Hard Hats There are two types and three classes of hard hats. They type and class used or required at the facility or site will be documented based on the hazards.
    - 5.2.4.2.2 Bump Caps Provide protection from impact against stationary objects but do NOT protect against impact or penetration from falling objects or electrical shock hazards.
    - 5.2.4.2.3 Welding Helmets Provide protection against ultraviolet, infrared, and visible radiation sources during welding operations.
    - 5.2.4.2.4 Hair Nets/Hats Protect employees from entanglement hazards (e.g. equipment with moving parts, etc.) This can be done with the use of hair restraining devices, such as hair nets, hats, etc.

#### 5.2.5 Hearing Protection

- 5.2.5.2 Hearing Protection is designed to protect against the affects of noise exposure in the workplace.
- 5.2.5.3 Where noise levels equal or exceed an 8 hour time weighted average of 85 dba, a Hearing Conservation program must be implemented and hearing protection shall be made available to affected employees.
- 5.2.5.4 Employers shall ensure hearing protection is worn when:
  - 5.2.5.4.5 Employees are exposed to noise levels equal or exceed an 8 hour time weighted average of 90 dba.
  - 5.2.5.4.6 Any employee who is exposed to an 8 hour time weighted average of 85 dba or greater who has not had their baseline audiogram or has experienced a standard threshold shift.
- 5.2.5.5 Voluntary Use: Employers can offer hearing protection to employees for voluntary use where noise levels do not exceed the requirements specified above.
- 5.2.6 Protective Clothing
  - 5.2.5.1 Clothing such as suits, aprons, coveralls, coats, and pants are available to protect the torso and body of individuals who may be exposed to skin absorption of chemical or biological agents, cuts or lacerations, abrasions, punctures, chemical burns, thermal burns, or harmful temperature extremes. Materials used in the manufacture of such clothing must be matched in resistance to the chemicals or materials being handled.
  - 5.2.5.2 Company provided clothing: Laundering of company-issued work clothing shall be provided by the company to avoid the need for employees to launder clothing at home whenever there is a potential for infectious material or chemical contamination such as asbestos, lead, cadmium, arsenic, sensitizers, etc.
- 5.2.5 Dust Mask (Filtering Facepiece) Protection Voluntary Use: This section applies to employees at any company facility or job-site where the use of a dust mask is utilized for voluntary use by employees.
  - 5.2.5.1 Required and voluntary use of a cartridge respirator or required use of a dust mask must comply with the Respiratory Protection standard.
  - 5.2.5.2 Dust mask will be packed or stored to prevent deformation of the face piece and/or exhalation valve.

- 5.2.5.3 The employer must provide employees with Information for Voluntary Respirator Use form or equivalent Appendix D from the OSHA standard.
- 5.3 Signs
  - 5.3.5 Signs should be posted, as needed, to warn employees and other personnel when protective equipment is required.
  - 5.3.6 Signs may read "Safety Glasses Required"; "DANGER Eye/Face Hazard area Do Not Enter Without Protective Equipment"; or "DANGER Hard Hat Required Area" or similar language may be used.

#### 6. Training and Information

- 6.1 Employees must be trained in the when PPE is necessary, what PPE is necessary, limitations, proper use, cleaning, storage and disposal practices for any PPE used in the workplace
- 6.2 Training must be documented.
- 6.3 Employees must demonstrate their understanding of the training and ability to properly use PPE before performing work. This can be done at the time of training (quizzes, classroom discussion, etc.) or through demonstration of work practices in the workplace.
- 6.4 Retraining will be performed when changes to the workplace necessitate different equipment or when changes to the type/design of the PPE are made which require a new skill or knowledge for its successful use. Retraining will also be done when an employee exhibits a lack of understanding or skill to use the equipment properly.

#### 7. Definitions

- Filtering facepiece (dust mask) A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.
- Personal Protective Equipment (PPE) Devices worn to protect employees from potential hazards encountered in the workplace.
- Certification of Hazard Assessment Certification that the Hazard Assessment has been conducted.

This is to certify that an evaluat indicated, a	<b>CERTIFICATION OF HAZARD ASSESSMENT</b> t an evaluation has taken place for the tasks and activities performed at this workplace, hazards hav indicated, appropriate Personal Protective Equipment (PPE) has been issued, and its use enforced	<b>AZARD ASSES</b> stivities performed at th ent (PPE) has been iss	<b>CERTIFICATION OF HAZARD ASSESSMENT</b> This is to certify that an evaluation has taken place for the tasks and activities performed at this workplace, hazards have been identified as indicated, appropriate Personal Protective Equipment (PPE) has been issued, and its use enforced.
Area Assessed:		Assessment Date:	
Assessment Completed By:		Signature:	
Job Task	Identified Hazard	ard	Required PPE
<u>Examples of Types of PPE as determined applicable to the Job Hazard:</u> Body Protection: Chemical Apron, Arm/Sleeve Protection, Fire R	<u>PE as determined applicable to the Job Hazard:</u> Chemical Apron, Arm/Sleeve Protection, Fire Resistive Clothing, Welding Apron, Tyvek		<u>Examples of Hazards (add more specifics to facility operations)</u> : Flying debris Chemical solash
tion: on:	Safety Glasses w/ Side shields, Goggles, Face Shield, Welding Shield PFAS, Lanyard, Harness Work Boots, Steel-toe shoes, Metatarsal Guards, Leather slip resistant shoes Ear Muffs, Ear Plugs, Canal Caps		Welding sparks High heat Sharp objects (knives, box cutters, wire) Potential Bloodborne Pathogen Exposure
Hand Protection: During Caps, naid Indi, nail inets Hand Protection: Neoprene Gloves, Nitrile Gloves, Respiratory Protection: Dust Mask, Cartridge Respirator.	Durrip Caps, India Indi, India Inets Neoprene Gloves, Nitrile Gloves, Electrical Gloves, Heat Resistant Gloves, Leather Gloves Dust Mask, Cartridge Respirator, SCBA/Airline Respirator		Falling debris from overhead



### ✤ Information for Filtering Facepiece (Dust Mask) Use When Respirators Not Required Under 29 CFR 1910.134 - Appendix D

# **To the employer:** The statement below must be read by all employees (or read to them in an understandable fashion) who are using filtering facepiece (dust mask type). A copy of this document must be given to the employee.

**To the employee:** Ensure you keep a copy of this form for your personal records.

#### EMPLOYEE INFORMATION

Employee Name:	ID Number:
Facility:	Work Location:
Job Title:	Dept./Phone:

**VERIFICATION:** I acknowledge that I have read and/or understand the information below (OSHA Respiratory Protection Statement) as is required by the Occupational Safety and Health Administration (OSHA).

#### EMPLOYEE SIGNATURE:

DATE:

# **OSHA RESPIRATORY PROTECTION STATEMENT**

#### <u>To The User:</u>

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, of if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

#### You Should Do The Following:

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

FORM RETENTION INFORMATION		
Retention File:	Location:	
Date Filed:	Filed By:	

TRAINING ATTENDANCE ROSTER PERSONAL PROTECTIVE EQUIPMENT				
<ul> <li>Personal Protective Equipment Training Includes:</li> <li>Hazards and Workplace Requirements</li> <li>Using and Maintaining PPE</li> <li>Eye and Face Protection</li> <li>Foot Protection</li> <li>Hand Protection</li> <li>Head Protection</li> <li>Hearing Protection</li> <li>Body and Clothing Protection</li> <li>Dust Masks</li> </ul>				
<u>INSTRUCTOR:</u>	<u>DATE:</u>	LOCATION:		
NAME (Please Print) FIRST - MI - LAST	SIGNATURE	E		
By signing below, I attest that I have attended the safe by the safety information, procedures, rules, regulat instruct	tions and/or company policy as			

Name of Interpreter, if utilized:

**Portable Ladder** 

#### PROGRAM OVERVIEW

# PORTABLE LADDER SAFETY PROGRAM

**REGULATORY STANDARD:** OSHA - 29 CFR 1910.25 Portable Wood Ladders - 29 CFR 1910.26 Portable Metal Ladders

- 29 CFR 1926.1050-1060
- **INTRODUCTION:** Details minimum requirements for the construction, care, and use of the common types of portable ladders ensuring safe use under normal conditions. The program has provisions for step, extension, and rung ladders.

#### TRAINING:

Employers must train all employees to recognize hazards of ladder use, the inspection of ladders and in the limitations of ladders to minimize the risk exposure.

#### ACTIVITIES:

- Ensure the appropriate type of ladder is selected based on the nature of the project
- Ensure employees are trained to inspect ladders for defects and in the safe use of ladders
- Ensure ladder inspections are performed
- Ensure ladders are properly repaired and maintained in accordance with regulatory standards or are properly disposed of when they are found to be defective (and or are removed from service)
- Ladders will be selected based on the type of work anticipated to be performed, and in accordance with applicable OSHA regulatory standards

#### FORMS:

- Ladder Safety Checklist
- Training attendance roster

#### **Table of Contents**

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

- 1. **Purpose.** Effective implementation for the safe use of ladders. This safety program is designed to establish safe use and handling requirements and will be communicated to all required personnel.
  - 1.1 When changes occur to the governing regulatory standards
  - 1.2 When facility operational changes occur that require a revision of this document
- 2. Scope. This program applies to the total workplace, regardless of the number of workers, work shifts or numbers and types of ladders used.

#### 3. Responsibilities.

- 3.1 Management and Supervisors:
  - 3.1.1 Procure the appropriate type of portable ladders
  - 3.1.2 Ensure employees are trained (as needed or required) in the inspection techniques used to inspect ladders and in the safe use of ladders (proper pitch, angle and hazard awareness)
  - 3.1.3 Ensure ladder inspections are performed (pre-use and periodic inspection)
  - 3.1.4 Ensure ladders are properly repaired in accordance with regulatory standards or properly disposed of when they are found to be defective or are removed from service
- 3.2 Employees:
  - 3.2.1 Inspect ladders daily or before each use if ladders are not used daily
  - 3.2.2 Do not use ladders that have not passed inspection
  - 3.2.3 Notify management or supervisors if ladders are found to be defective and promptly tag them with a do not use sign and remove them from service
- 3.3 Competent Person:
  - 3.3.1 Train employees in ladder inspection techniques
  - 3.3.2 Provide recommendations for procurement, repair and disposal of ladders.

#### 4. Procedure.

4.1 General Requirements.

- 4.1.1 A stairway or ladder must be provided at all personnel points of access where there is a break in elevation of 19 inches (48 cm) or more, and no ramp, runway, sloped embankment, or personnel hoist is provided.
- 4.1.2 A uniform step spacing must be employed which must be not more than 12 inches. Steps must be parallel and level when the ladder is in position for use.
- 4.1.3 Rungs and steps shall be corrugated, knurled, dimpled, coated with skidresistant material, or otherwise treated to minimize the possibility of slipping.
- 4.1.4 Rungs should be kept free of grease and oil.
- 4.1.5 Ladders will be maintained in good condition at all times, the joint between the steps and side rails will be tight, all hardware and fittings securely attached, and the movable parts will operate freely without binding or undue play.
- 4.1.6 Ladders will not be placed in front of doors opening toward the ladder unless the door is blocked, locked, or guarded.
- 4.1.7 Ladders will not be placed on boxes, barrels, or other unstable bases to obtain additional height.
- 4.1.8 Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment will not be used, ladders having any of these conditions present will be destroyed and disposed of. Improvised repairs will not be made.
- 4.1.9 Short ladders will not be spliced together to provide long sections.
- 4.1.10 Ladders made by fastening cleats across a single rail will not be used.
- 4.1.11 Ladders will not be used as guys, braces, or skids, or for other than their intended purposes.
- 4.2 Step Ladders.
  - 4.2.1 Tops of ordinary stepladders will not be used as steps.
  - 4.2.2 The bracing on the back legs of step ladders is designed solely for increasing stability and not for climbing.
  - 4.2.3 The metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in open positions must be properly maintained for each stepladder. The spreader must have all sharp points covered or removed to protect the user.
  - 4.2.4 Stepladders longer than 20 feet will not be used.
  - 4.2.5 Stepladders of one of the following types specified will be used:

- Type I--Industrial stepladder, 3 to 20 feet for heavy duty, such as utilities, contractors, and industrial use.
- Type II--Commercial stepladder, 3 to 12 feet for medium duty, such as painters, offices, and light industrial use.
- 4.2.6 The minimum width between side rails at the top, inside to inside, must be not less than 11 1/2 inches. From top to bottom, the side rails must spread at least 1 inch for each foot of length of stepladder.
- 4.2.7 Painter's stepladders longer than 12 feet will not be used.
- 4.3 Extension/Rung Ladders.
  - 4.3.1 Metal bearings of locks, wheels, pulleys, etc., will be frequently lubricated.
  - 4.3.2 Frayed or badly worn rope will be replaced.
  - 4.3.3 Safety feet and other auxiliary equipment will be kept in good condition to ensure proper performance.
  - 4.3.4 Equipped with non-slip bases when there is a hazard of slipping. Non-slip bases are not intended as a substitute for care in safely placing, lashing, or holding a ladder that is being used upon oily, metal, concrete, or slippery surfaces.
  - 4.3.5 The length of single ladders or individual sections of ladders must not exceed 30 feet.
  - 4.3.6 Two-section ladders shall not exceed 48 feet in length and over two-section ladders must not exceed 60 feet in length.
  - 4.3.7 Trestle ladders, or extension sections or base sections of extension trestle ladders longer than 20 feet will not be used.
  - 4.3.8 Ladders will be so placed that the side rails have a secure footing, unless equipped with a single support attachment. The top rest for portable rung and cleat ladders will be reasonably rigid and will have ample strength to support the applied load.
  - 4.3.9 No ladder should be used to gain access to a roof or elevated work area unless the top of the ladder is extended at least 3 feet above the point of support.
  - 4.3.10 Rung and cleat ladders will, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support). The ladder will be so placed as to prevent slipping, or it will be lashed, or held in position. Ladders will not be used in a horizontal position as platforms, runways, or scaffolds.

4.3.11 On two-section extension ladders the minimum overlap for the two sections in use will be as follows:

Size of Ladder (in Feet)	Overlap (in Feet)
Up to and including 36	3
Over 36 up to and including 48	4
Over 48 up to and including 60	5

- 4.3.12 Ladders with reinforced rails will only be used with the metal reinforcement on the underside.
- 4.3.13 Mason's ladder. A mason's ladder is defined as a special type of single ladder intended for use in heavy construction work. Mason's ladders longer than 40 feet will not be used.

#### 5. Safety Information.

- 5.1 Ladders will be inspected frequently and those which have developed defects will be taken out of service until repaired by either maintenance department or the manufacturer.
- 5.2 If a ladder is involved in any of the following, immediate inspection is necessary:
  - 5.2.1 If ladders tip over, inspect ladder for side rails dents or bends, or excessively dented rungs; check all rung-to-side-rail connections; check hardware connections; check rivets for shear.
  - 5.2.2 If ladders are exposed to oil and grease, equipment should be cleaned of oil, grease, or slippery materials.
- 5.3 Portable ladders are designed as a one-man working ladder based on a 200-pound load.
- 5.4 When ascending or descending, the climber must face the ladder.
- 5.5 Ladders should not be used as a brace, skid, guy or gin pole, gangway, or for other uses than that for which they were intended, unless specifically recommended for use by the manufacturer.
- 5.6 Metal ladders will not be used when work is performed on or near electric circuits.
- 5.7 Procurement and Disposal of Ladders. All procurement and disposal of ladders will be performed through or with the knowledge of the competent person or other designated person. Ladders will be destroyed beyond use prior to disposal to prevent further use by anyone. Procurement of ladders will be accomplished based on the type of work anticipated to be performed and in accordance with this safety program and applicable OSHA regulatory standards.

#### 6. Training and Information.

- 6.1 Employees will be trained, as needed or required, in the inspection techniques related to daily or pre-use ladder inspections.
- 6.2 Employees will be trained in the safe use requirements of ladders (pitch, angle, etc.) and in their limitations of use (not near electrical current, not placed on top of other materials to increase height, etc.).

#### 7. Definitions.

Competent Person - is knowledgeable of applicable standards, is capable of identifying workplace hazards relating to the specific operation, and has the authority to correct them.

# Ladder Safety Checklist

Date of Inspection:	Name of Inspector:	Ladder	Number:		
Type of Ladder: () Extension () Step					
Construction of Ladder: O Wood O Metal O Fiberglass					
General		Compli	iant?	Needs Repair	
All labels/markings/weight limits on the l legible.	adder are in place and	YES			
There are no lose or missing steps or ru moved by hand).	ngs (loose if can be				
There are no loose nails, screws, bolts,	or other fasteners.	YES			
The ladder is not cracked, splintered, sp braces, steps, or rungs.	lit, or broken uprights,	YES			
The ladder is free from grease, oil, or sli	ppery materials.	YES			
The joints between rungs and side rails moved by hand).	are tight (loose if can be				
The ladder rungs/steps are tight and con metal ladders.	rugated or knurled on				
All movable parts operate freely.					
The non-slip bases are not damaged or	worn.	YES			
Rails are free from cracks/splitting		YES			
Hinge spreaders are not loose or bent a	llowing ladder to wobble.	YES			
The hinge spreaders are not broken and loose edges.	do not have sharp or	VES	□ NO		
There are no loose, broken, or missing o	extension locks.	YES			
There are no defective locks that do not is extended.	seat properly when ladder				
Ladder ropes are not frayed, worn or mi	ssing.	YES			
Single section ladders do not exceed 30	feet in length	YES			
Two-section extension ladders do not ex metal ladders and 60 feet in length for w	•	VES			
Ladders with more than two sections do length.	not exceed 60 feet in	YES			
Comments					

TRAINING ATTENDANCE ROSTER PORTABLE AND FIXED LADDERS AND MOBILE STAIRS				
<ul> <li>Portable Ladders and Mobile Stairs Training Includes:</li> <li>General Ladder Safety Requirements</li> <li>Inspection of Equipment</li> <li>Portable Step Ladder Use</li> <li>Portable Rung Ladder Use</li> <li>Fixed Ladder Use</li> <li>Mobile Stairs Use</li> </ul>				
<u>INSTRUCTOR:</u>	<u>DATE:</u>	<u>LOCATION</u> :		
NAME (Please Print) FIRST - MI - LAST	SIGNATURE			
By signing below, I attest that I have attended the safety training for the topic indicated, and will abide by the safety information, procedures, rules, regulations and/or company policy as presented and instructed				

Name of Interpreter, if utilized:

Safe Driving and Vehicle/Fleet

#### PROGRAM OVERVIEW

## SAFE DRIVING AND VEHICLE/FLEET SAFETY PROGRAM

**REGULATORY STANDARD:** OSHA General Duty Clause

**INTRODUCTION**: Company owned or leased vehicles must be maintained in proper condition, and drivers appropriately licensed to operate the type of vehicle. This program outlines the basic inspection techniques for using a company owned or leased vehicle. This program also outlines the basic safety requirements for operating both company owned and leased vehicles and for personal vehicles used for company business purposes.

#### **TRAINING:**

- Appropriate driver's licenses for the type of vehicle are required.
- Basic driver safety is recommended for employees who use vehicles for company business.

#### **ACTIVITIES:**

• Inspect vehicles prior to operation

#### FORMS:

- Safe Driving Vehicle Inspection
- Training Attendance Roster

#### **Table of Contents**

- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training and Information
- 7. Definitions

- **1. Purpose.** This program outlines the recommendations for managing and inspecting automobiles and trucks used by company employees for business reasons.
- 2. Scope. This program applies to vehicles owned or leased by the company and to employee owned vehicles used for company business.

#### 3. Responsibilities.

- 3.1 Management:
  - 3.1.1 Ensure drivers are licensed and certified for the type of vehicle driven, without restrictions on their licenses.
    - 3.1.1.1 Where MVR reports are required annually or for pre-employment, ensure an adequate process to obtain and confidentially maintain this information is in place.
  - 3.1.2 Ensure any vehicles are properly inspected, registered and maintained.
  - 3.1.3 Ensure seat belts, safety chains for snow and other equipment is available and functional, as needed or required.
  - 3.1.4 Ensure vehicle insurance is in place for any owned or leased vehicles.
  - 3.1.5 Revoke the driving privileges for employees driving company owned or leased vehicles where the driving record or ability of the employee may be in question.
- 3.2 Employees or Drivers:
  - 3.2.1 Ensure your driver's license is current
  - 3.2.2 Ensure your driver's license is the appropriate type for the vehicle being used.
  - 3.2.3 Inspect vehicles before driving.
  - 3.2.4 Ensure you are capable of driving safely (physical, emotional and mental health)
- 3.3 Safety Officer:
  - 3.3.1 Assist in the development and implementation of the written program, as needed.

#### 4. Procedure.

4.1 General Requirements:

- 4.1.1 Only authorized personnel may drive company vehicles.
- 4.1.2 Driving while under the influence of alcohol, inhalants or illegal drugs, or after taking any medications that may impair your driving ability is prohibited.
- 4.1.3 Drivers must obey all traffic signals and devices, and obey traffic laws at all times.
- 4.1.4 Seatbelts must be worn at all times while the vehicle is in motion.
- 4.1.5 Only company authorized persons may ride as a passenger in a company owned or leased vehicle, based on company policy.
- 4.1.6 Drivers may only use "hands-free" style phone systems when the vehicle is in motion, based on state requirements.
- 4.2 Break Downs Involving Company Vehicles:
  - 4.2.1 Drivers must notify the company as soon as possible after any accident or incident with a company vehicle, regardless of how minor the incident may have been.
  - 4.2.2 Contact your supervisor or manager immediately for assistance obtaining towing or repair.
  - 4.2.3 If the company subscribes to a vehicle service agency (like AAA or other roadservice provider), follow the established procedure for contacting that agency.
- 4.3 Vehicular Accidents. In the event of an accident, remain calm. Our first priority is the health and safety of our employees. Employees involved in a work-related vehicular accident must:
  - 4.3.1.1 Contact the appropriate local law enforcement agency. Even if the incident is minor, a police report is required for all vehicular accidents involving a company owned vehicle or for those occurring while the employee is performing company business.
  - 4.3.1.2 Notify company management or Supervisors as soon as possible.
  - 4.3.1.3 If possible, leave vehicles in their positions until the police arrive.
  - 4.3.1.4 Do not discuss the accident with others involved. Share your observations only with the police.
  - 4.3.1.5 Exchange, if possible, the following information with all other drivers involved:

- 4.3.1.5.1 The driver's name
- 4.3.1.5.2 The names of all other passengers (per involved vehicle)
- 4.3.1.5.3 The driver's/auto insurance information
- 4.3.1.5.4 The other vehicle information: make, model, year, color, and license plate number
- 4.3.1.5.5 The name of the driver's employer if the driver was traveling for business
- 4.3.1.6 If property damage occurred to a vehicle of an unknown owner (e.g. a parked car) or other property (e.g. a fence), do NOT leave the scene until a full police report is completed.

#### 5. Safety Information.

- 5.1 Notification of Driver Suspension, Accidents or similar issues
  - 5.1.1 Employees must notify their supervisor or manager within 24 hours of any citation of traffic or driving violation, if the violation occurred while using a company vehicle.
  - 5.1.2 Employees who may be expected to drive for company business must notify their supervisor or manager if their license is suspended, revoked or restricted for any reason.
- 5.2 Companies will maintain owned or leased vehicles in a safe manner.
  - 5.2.1 Employees who find defects or repair needs with any company vehicle must notify their supervisor or manager immediately.
  - 5.2.2 Employees may not drive company vehicles that are in an unsafe condition.
- 5.3 Pre-Driving Inspection:
  - 5.3.1 Tire condition and, if necessary, pressure
  - 5.3.2 Spare tire available
  - 5.3.3 Lights and turn signals operational
  - 5.3.4 Windshield wipers functional
  - 5.3.5 Windshield intact (no cracks or breaks)

- 5.3.6 Defroster operational
- 5.3.7 Oil and fluids (windshield cleaner, transmission, brake fluid) present at required levels.
- 5.3.8 Brakes functional
- 5.3.9 Mirrors are present, properly adjusted and clean.
- 5.3.10 Vehicle loads are secure
- 5.3.11 Emergency materials and equipment (fire extinguishers, accident reporting kit, vehicle registration, etc.) are present, as needed.
- 5.3.12 General vehicle condition is appropriate. Scrapes, scratches, dents or other damage should be reported before taking the vehicle on the road.

#### 6. Training and Information.

6.1 It is recommended that employees undergo defensive driving or general safe driving training when they are required to operate company owned or leased vehicles.

#### 7. Definitions.

- Driving Responsibilities An employee who drives a vehicle (company owned or leased, or a personal vehicle) for company business purposes.
- Vehicle a company owned or leased automobile, truck or motorcycle which requires a valid driver's license to operate on public roadways.

SAFE DRIVING VEHICLE INSPECTION CHECKLIST					
ITEM	1	/ES		NO	)
Tires are in good condition (tread, pressure)					
Spare tire is accessible					
Head-lights operational (regular and high beams)					
Turn signals operational					
Windshield wipers operational					
Washer fluid available					
Windshield intact (no cracks or breaks)					
Defroster operational, as needed					
Oil and fluid levels (brake, transmission, oil) present					
at required levels					i 
Brake lights function					
Mirrors (side and rearview) present and in good					1
condition					 
Mirrors adjusted for driver					
Vehicle loads and any storage of materials are					1
secure					] 1
Fire extinguishers are present, as needed					
Vehicle registration is available					
Accident reporting information is available					
Vehicle is in generally good condition.					
Note any dents, scratches or other damage issues pre	ese	nt:			
Checklist completed by:					
Date: Time of Day:					

TRAINING ATTENDANCE ROSTER SAFE DRIVING - BASIC AWARENESS			
<ul> <li>Safe Driving Training Includes:</li> <li>The 3 Factors of Safe Driving</li> <li>The 6 Conditions of Driving</li> <li>The 5 Steps to Decision Driving</li> <li>Passing and Collision Prevention</li> <li>Right of Way</li> <li>Stopping Distance and Types of Stopping</li> <li>Tailgating</li> <li>Driving Attitude</li> </ul>			
INSTRUCTOR:	<u>DATE:</u>	<u>LOCATION</u> :	
NAME (Please Print) FIRST - MI - LAST	SIGNATURE	E	
By signing below, I attest that I have attended the safe by the safety information, procedures, rules, regulat instruct	ions and/or company policy as		

7

Name of Interpreter, if utilized:

extra

extra