Title	Program Requirements	Training Requirements
Access to Employee Exposure and Medical Records	 Identify what records must be maintained Maintain employee's records confidentially Ensure access to records by employees, as required 	REQUIRED TRAINING: • Access to Employee Exposure and Medical Records
	• Inform employees of their rights, complete pg. 6 (file name: Access to Employee Exposure and Medical Records FORM), employees need access	Employees must be informed of what records are kept, their location, and how to access them. Frequency: initial, annual
Accident Investigation and Reporting	 Determine who will investigate accidents, this may include supervisors, management, and employees Determine accident and near miss reporting procedures Complete accident report as needed, pg. <u>11 – 13</u> (file name: Accident, Incident, Near Miss Investigation Report FORM) 	Available but not required training: • Accident Investigation (Supervisor) • Accident Reporting
Aerial Lift	 Identify the tasks that require an aerial lift Write and communicate workplace specific procedures that outline the operation, and limitations, of aerial lifts Maintain manufacturer's requirements, limits and documentation Conduct documented daily inspections prior to use, pg. 7 (file name: Aerial Lift Operator Checklist FORM) Implement fall arrest systems as required Annually evaluate the aerial lift program to assure it is relevant and functioning properly 	 REQUIRED TRAINING: Aerial Lift - Personal Fall Arrest System Users in operating controls and safe use. (Paychex can provide for classroom education, not skills requirement) Frequency: initial, update as required
Back Safety in the Workplace	 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 	Available but not required training: • Back Safety • Back Care (Medical)
Blood and Body Fluids (Incidental) Exposure	Identify risk situations	Available but not required training:
Construction	 Access each construction job to identify its potential health and safety risks and communicate the identified hazards to employees Review operations for additional activities which could impact both contractors and employees Write and communicate policies and procedures Conduct compliance audits when contractors are on site 	REQUIRED TRAINING: • Overview – Construction Employees will be trained on safety policies and procedures as well as the hazards posed by their work assignment.

Title	Program Requirements	Training Requirements
Electrical [Comprehensive]	 Review hazards and determine level of exposures Provide testing supplies and safety equipment Provide warning and alerting devices to protect employees from contact with energy hazards Write and communicate policies and procedures, pg. 10 – 12 (file name: Electrical Safety Written Program (Example) FORM), employees need access 	 REQUIRED TRAINING: Electrical Safety Hazard recognition and protective measures. Competent person for Ground Fault Protection in Construction. (Paychex can provide general awareness training, not qualification or high voltage exposure) Frequency: initial, update as required
Emergency Action, Evacuation, and Fire Prevention	 Identify and evaluate fire hazards Identify and evaluate exit routes Provide emergency equipment as needed Write and communicate policies and procedures including Emergency Action and Fire Prevention Programs, pg. 12 (file name: Emergency Action Plan FORM), employees need access Review program at least annually Annual and monthly fire extinguisher inspections 	 REQUIRED TRAINING: Emergency Action Fire Extinguisher Emergency Action training required for all employees in exiting areas, relocation safe- spot, and (as appropriate) fire hazards. Fire Extinguisher training required if an employee is required to use fire extinguishers, training required annually. (Paychex can provide only voluntary use fire extinguisher training) Frequency: initial, update as required, annual for some businesses
Ergonomics and MSD	 Evaluate the need for an ergonomics program Implement controls to minimize or eliminate repetitive or force trauma tasks 	Available but not required training: • Office Ergonomics • General Industry Ergonomics
Eye Wash Station and Safety Shower	 Assess area hazards to determine where eye wash stations and safety showers are required Ensure appropriate signs are placed to indicate the location of eye wash stations and safety showers, and operating instructions are placed at the units Conduct inspections of safety equipment, pg. 10 or 11 (file name Activation and Inspection Eye Wash Station FORM or : Activation and Inspection Safety Shower Station FORM) 	 REQUIRED TRAINING: Eyewash and Safety Shower All employees and supervisors who are exposed to, work with or near corrosive or injurious materials must be instructed on the use. Frequency: initial, update as required

Title	Program Requirements	Training Requirements
Fall Protection (Personal Fall Arrest System)	 Evaluate hazards falls are evaluated in the workplace Ensure fall hazards are controlled through guardrail systems or that employees have appropriate training and equipment Ensure fall protection is inspected prior to use, <u>pg. 9 – 10</u> (file name: Fall Protection Equipment Inspection Checklist FORM) 	REQUIRED TRAINING: • Fall Protection General Industry (Guardrails & Personal Fall Arrest Systems) Awareness • Fall Protection Construction (Guardrail, PFAS, Safety Net and Other Systems) Awareness Users of systems, components, and inspection Frequency: initial, update as required, annual in some states
First Aid and Emergency Medical Response	 Determine if on-site first aid or emergency response teams or designated and trained personnel are required (if ambulance or EMT/fire department is more than 3-4 minutes away) Establish agreements with local ambulance or fire/EMT services to provide emergency medical response, if appropriate Write and communicate policies and procedures 	 REQUIRED TRAINING: First Aid (Basic) Only required for: Response Teams certified 1st aid/CPR and Bloodborne Pathogens. Other training as required by responsibilities. (Paychex can provide general awareness and BBP, but not certified 1st Aid or CPR) Frequency: initial, CPR every two years.
General Safety Awareness	 Document any site specific General Safety Rules not covered by any other section of the safety manual, pg. 11 (file name: General Safety Rules FORM), employees need access Ensure New Employee are given safety training prior to starting work 	Available but not required training: • General Safety Orientation
Hand and Portable Power Tool	 Inspect tools before use to ensure they are in good operating condition 	Available but not required training:

Title	Program Requirements	Training Requirements
Hazard Communication	 Determine if hazardous chemicals are present in the workplace Ensure the availability of a Safety Data Sheet (SDS) for each hazardous chemical or mixture in the workplace, employees need access Ensure a Hazardous Chemical Inventory List is maintained, pg. 7 (file name: Chemical Inventory List FORM) Ensure proper labeling of chemical containers Complete a written hazard communication program, pg. 9 - 10 (file name: Hazard Communication Written Program FORM), employees need access Develop a process to evaluate and document any new hazards or changes Ensure proper Personal protective equipment is identified 	 REQUIRED TRAINING: Hazard Communication SDS content, Labeling requirements, Right to Know Frequency: initial, update as required, annual in some states
Job Hazard Analysis (JHA)	 Ensure hazards of tasks and activities are evaluated and controlled 	Available but not required training: • JHA Job Hazard Analysis
Lock-Out/Tag-Out	 Evaluate the potential hazards of specific equipment Inform absent employee of lock removal, pg. 12 (file name: LOTO Absent Employee Lock Removal Procedure FORM) Establish a written program and procedures for each piece or type of equipment, pg. 16 – 17 (file name: LOTO Written Procedure FORM), employees need access Perform annual procedure inspections, pg. 18 (file name: LOTO Written Procedure Inspection Certificate FORM) Communicate with contractors, as required Evaluate all new equipment (or changes to old equipment) and processes for LO/TO capability 	REQUIRED TRAINING: • Lockout Tagout 3 levels: Authorized, Affected and Others Frequency: initial, update as required
Marking Industrial Hazards	 Evaluate the facility to determine where safety signs and markings are required Provide appropriate signs and markings as required Ensure employees are aware of the signs and their meanings Provide equipment, as needed, for employees to comply with the requirements 	Available but not required training: Marking Industrial Hazards (Supervisor)

Title	Program Requirements	Training Requirements
Noise Exposure and Hearing Conservation	 Determine where noise levels exist above regulatory levels, conduct monitoring Appoint a Hearing Conservation Coordinator Establish a written Noise Exposure and Hearing Conservation Program, pg. 10 (Hearing Conservation Program Responsibilities) Establish engineering controls, administrative controls or protective equipment requirements (in that order) to reduce or eliminate the health and safety effects of noise Notify employees exposed at or above action levels Ensure employees in noise zones receive baseline and annual audiograms Record any noise related hearing loss as required on OSHA recordkeeping forms Ensure protective equipment and materials are available, as needed or required Post copy of hearing regulation and signs in area where hearing protection must be used, pg. 17 – 25 (file name: Text of Noise and Hearing Conservation Standard FORM) 	REQUIRED TRAINING: • Hearing Protection Users in hazards of noise, types of protection, equipment use Frequency: initial, annual
OSHA Recordkeeping	 Determine if recordkeeping standards apply Maintain appropriate records: OSHA 300 pg. 10 (file name: OSHA_300_Log), 300A pg. 11 (file name: OSHA_300A_Log) and 301 pg.12 (file name: OSHA_301 or equivalent form) Notify OSHA within 8 hours of fatalities and within 24 hours of work related inpatient hospitalization, amputation, or loss of an eye Post appropriate summaries of the OSHA recordkeeping forms from Feb 1 – April 30 Encourage employees to report any incidents (injuries, illnesses, and near-miss incidents) Report the contents and summaries of these documents upon being notified in writing by the Bureau of Labor Statistics that the employer has been selected to participate in a statistical survey of occupational injuries and illnesses Retain log and summary of all recordable occupational injuries and illnesses (OSHA 300 and OSHA 300A or equivalent) for 5 years 	Available but not required training: • OSHA Recordkeeping (Supervisor)
Personal Protective Equipment	 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 Provide protective equipment, as required 	 REQUIRED TRAINING: Personal Protective Equipment (Equipment dependent) Users of equipment in use, storage and protection limits. Frequency: initial, update as required

Title	Program Requirements	Training Requirements
Portable Ladder	 Ensure the appropriate type of ladder is selected based on the nature of the project Ensure ladder inspections are performed, pg. [7] (file name: Ladder Safety Checklist FORM) 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) 	REQUIRED TRAINING: • Ladder Safety Users of ladders in inspection and equipment use Frequency: initial, update as required
Safe Driving and Vehicle/Fleet	 Inspect vehicles prior to operation 	Available but not required training: • Safe Driving
Safety Checklists	Routine safety inspections and audit of the workplace	No OSHA trainings apply
Safety Meetings and Committee Charter	 If required, establish a safety committee Meet on a regular basis (at least quarterly) to discuss safety issues or concerns appropriate to the workplace Ensure notes are taken at committee meetings and actions and activities are documented. Where corrective actions are required, ensure follow up is completed., pg. 9–10 (file name: Safety Committee Task Sheet FORM) 	Available but not required training: • Safety Committee Members
Stairway and Fixed- Ladder Industrial	 Implement, communicate, and enforce stairway and fixed-ladder safety policies Ensure fixed ladders and stairs are maintained in good, useable condition, free from obstacles, storage and debris Ensure any new or existing installations meet the regulatory requirements for strength, durability, rung and cage spacing, etc. Provide equipment for lifting or lowering materials and equipment to ensure safe use of fixed ladders Provide adequate lighting 	REQUIRED TRAINING: • Ladder Safety Employees will be informed in the recognition of hazards for fix ladder use. Frequency: initial, update as needed

Title	Program Requirements	Training Requirements
Walking and Working Surfaces	 Ensure aisles and passageways are of the proper width and appropriately maintained Ensure all wall, floor, stairways are adequately protected Ensure floors are not overloaded, and that load limits are indicated Enforce housekeeping rules Ensure materials are properly stored and not obstructing aisles, passageways, stairways or other areas where they could cause a hazard 	Available but not required training: • Slips Trips and Falls • Walking and Working Surfaces
Working in Extreme Temperatures	 Monitor workplace temperatures Ensure employees and supervisors are able to recognize early signs and symptoms of cold and heat intolerance Provide engineering controls, work practices and protective equipment to reduce exposure levels to the lowest achievable level Ensure the availability of water or other appropriate beverages to employees 	Available but not required training: • Extreme Temperature - Cold • Extreme Temperature - Heat

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Connected Power Services, LLC

Safety Manual



Payroll • HR • Retirement • Insurance

April 2016

Connected Power Services, LLC

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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.

PROGRAM OVERVIEW

ACCESS TO EMPLOYEE EXPOSURE AND MEDICAL RECORDS

REGULATORY STANDARD: OSHA 29CFR1910.1020 and 1913.10

INTRODUCTION

Records that pertain in any way to exposures or to employee specific health information must be maintained confidentially by the company. Employees must understand what records are kept, why, and how to access these records. This would include medical exams, facility surveys for air contaminants, noise surveys, hearing exams, etc.

TRAINING

Employees informed on the types of records, location, and access procedures.

ACTIVITIES

- · Identify what records must be maintained
- · Maintain employee records confidentially
- · Ensure access to records by employees, as required

FORMS

- Access to Employee Exposure and Medical Records
- Release of Medical or Exposure Records Consent Form
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ACCESS TO EMPLOYEE EXPOSURE AND MEDICAL RECORDS PROGRAM

- 1. **Purpose.** This document provides written guidance for specific exposure monitoring, testing results, medical surveillance, and similar documents required by OSHA regulations with regard to employee-specific information. Records that contain health related information specific to an employee or employee exposure must be maintained for specific timeframes.
- **2. Scope.** Applies to any medical or exposure monitoring records, and medical surveillance monitoring records maintained by the company.

3. Responsibilities

- 3.1 Area Management:
 - 3.1.1 Determines what records must be maintained. (Reference Recordkeeping Requirements for Medical and Exposure Records form)
 - 3.1.2 Ensures medical and exposure records are maintained confidentially.
 - 3.1.3 Ensures employees have access to medical and exposure records.
- 3.2 Employees:
 - 3.2.1 Understand where records are kept, why they are required, and how to access them.
- 3.3 Safety Representative must (as needed):
 - 3.3.1 Assist in the implementation of this program.

4. Procedure

- 4.1 Access Rules.
 - 4.1.1 Employee access to records must be provided within 15 working days from the date of request.
 - 4.1.1.1 Except for trade secrets, employers are to disclose the specific chemical identity [chemical name and Chemical Abstract Service (CAS) number] of materials for which exposure records are requested
 - 4.1.1.2 Requests need not be in writing, unless trade secret information is involved in the request.
 - 4.1.1.3 Delays of more than 15 days must be documented in writing and the employee informed (also in writing) of the reason for the delay and include the date of release of the record.

- 4.1.1.4 Access may be to employees to whom the records pertain or to that employee's legal representative. The records of other employees are not to be considered part of this information, unless the information is part of objective data evaluations.
- 4.1.2 OSHA may access these records at any time without written consent of the employee.
 - 4.1.2.1 OSHA representatives must govern the records in accordance with their policy which includes
- 4.1.3 Health professionals (physicians, occupational health nurses, industrial hygienists, toxicologists, and epidemiologists) who require information for nonemergency medical treatment may request access to medical records with the written consent of the patient or their legal representative.
- 4.1.4 Health professionals (physicians, occupational health nurses, industrial hygienists, toxicologists, and epidemiologists) who require information for emergency or medical treatment of an exposed employee will be granted immediate access to pertinent information about the exposure without delay.
 - 4.1.4.1 If trade secret information is part of this record, confidentiality agreements may be obtained at a future point, however, immediate information will be transmitted as it pertains to the emergency medical treatment.
- 4.1.5 Employers must inform their workers initially and at least annually of their rights to access to medical and exposure records.

5. Safety Information

- 5.1 Records Retention:
 - 5.1.1 Exposure records are generally required to be maintained for 30 years.
 - 5.1.2 Medical records are generally required to be maintained for the duration of employment plus 30 years.
 - 5.1.3 Biological and Chemical monitoring results are generally maintained for the duration of employment plus 30 years.
 - 5.1.4 First aid records and experimental toxicological research records are excluded from the 30-year retention requirements.
 - 5.1.5 Safety Data Sheets and Chemical Inventory Information is generally not required to be maintained, provided the specific information on chemical name, manufacturer and date is maintained in the exposure record.
 - 5.1.6 Personal medical records for short-term employees (less than one year) do not have to be retained if they are provided to the employee on termination

- 5.1.7 X-rays (except chest x-rays) may be microfilmed for easier storage. Chest x-rays must be maintained in their original condition.
- 5.2 Copies of Records
 - 5.2.1 Employees are entitled to view their records at any time.
 - 5.2.2 One copy of the record will be provided within 15 days of a written request at no charge to the employee.
 - 5.2.2.1 X-rays may be viewed at the site or at a convenient off-site location.
- 5.3 Transfer of Records
 - 5.3.1 Should the company cease to do business during the record retention time frame, the company will contact OSHA to determine the disposition of the records.
 - 5.3.1.1 OSHA may request the records be forwarded to OSHA for retention, or
 - 5.3.1.2 OSHA may request disposal of the records. If disposal is determined, complete destruction of the record through incineration or shredding is required.

6. Training and Information

Employees must be informed of the types of records maintained by the company, who maintains these records, and the process for accessing their personal records.

7. Definitions.

- Ø Access The right to read, examine, and copy.
- Exposure Record Environmental (workplace) monitoring or measuring of a toxic substance or harmful physical agent, including personal, area, grab, wipe, or other form of sampling, as well as related collection and analytical methodologies, calculations, and other background data relevant to interpretation of the results obtained; or Biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems (e.g., the level of a chemical in the blood, urine, breath, hair, fingernails, etc.) but not including results which assess the biological effect of a substance or agent or which assess an employee's use of alcohol or drugs;

- Medical Record Documentation concerning the health status of an employee which is made or maintained by a physician, nurse, or other health care personnel, or technician, including: Questionnaires or histories, medical examination results or laboratory test results (including x-rays), medical opinions, descriptions of treatments and prescriptions, detailed first aid descriptions, and employee medical complaints. Health insurance claims and voluntary employee assistance program information (drug or alcohol counseling, and/or personal counseling programs) are not considered part of the medical record if they are maintained in a separate system, nor are voluntary employee assistance program information.
- Ø Objective Data Evaluations a type of exposure evaluation using area or personnel sampling where the data is representative of employee exposures in the work environment.
- Ø Trade Secret Confidential information that pertains to the chemical make up of a substance or mixture that, when disclosed, will have a negative impact on the company's business activities with regard to trademarked or similarly protected products.

ACCESS TO EMPLOYEE EXPOSURE AND MEDICAL RECORDS (OSHA 1910.1020)

Employees and their designated representative have a right of access to relevant exposure and medical records; and to provide representatives of OSHA a right of access to these records to fulfill responsibilities under the Occupational Safety and Health Act.

Employee medical records include: medical exams, facility surveys for air contaminants, noise surveys, hearing examinations, etc.

Location of records and availability

All exposure and medical records are on file in the ______. A copy of the records is available to the employee and an employee representative. All requests must be in writing, including the employee's signature.

Person responsible for maintaining records

The ______ is responsible for maintaining and providing access to records and to provide information on employee's rights of access of their records.

Location and availability of Section 1910.1020

A copy of section 1910.1020 and its appendices are located on the OSHA website (http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10027) or are printed and posted, and available to employees in the workplace at the following location:

RELEASE OF MEDICAL OR EXPOSURE RECORDS CONSENT FORM
I,, hereby authorize (full name of worker/patient) to release to (organization holding the medical records) the following records: (organization authorized to receive information)
(Describe the specific information desired to be released). I give my permission for this medical information to be used for the following purpose:
but I do not give permission for any other use or re-disclosure of this information. This release consent expires on:(date)
ONLY the above listed information is authorized to be released. No other information pertaining to my records is authorized for release.
Full name (printed) of Employee or Legal Representative
Signature of Employee or Legal Representative
Date of Signature:

7

This listing outlines the requirements for recordkeeping for employee exposure and medical records for the regulations listed in the General Industry Standards				
Topic or Record Type	Regulatory Citation	Frequency of Monitoring	Duration of Recordkeeping	
Incident Reports	1904	or Records As Incident Occurs	5 years	
Training Records	General	As deemed by specific regulation	Until superseded unless otherwise noted	
Injury and Illness Logs (300/300A)	1904	Annual	5 years	
Noise Monitoring Results	1910.95	Annual	2 years	
Noise and Hearing Audiograms	1910.95	Annual	Duration of employment	
Process Safety for Highly Hazardous Chemicals	1910.119	As Incident Occurs	5 years	
Hazardous Waste Operations and Emergency Response for exposures above PEL	1910.120	Annual or as deemed by physician	Duration of employment plus 30 years	
Respirator Use Medical Evaluations	1910.134	Annual	Duration of employment plus 30 years	
Respirator Use Fit Test	1910.134	Annual	Until superseded	
Commercial Diving Incident and Injury Reports	1910.401- 441	As Incident Occurs	Duration of employment plus 30 years	
Commercial Diving Medical Records	1910.440	Annual	5 years then to OSHA	
Commercial Diving Dive Records	1910.440	Per Dive	1 year	
Commercial Diving Decompression Evaluation	1910.440	Per Dive	5 years then to OSHA	
Commercial Diving Equipment Evaluations and Inspections	1910.440	Per Use	Until superseded	
Air Contaminants Exposures above PEL	1910.1000	Annual or as deemed by physician	Duration of employment plus 30 years	
Asbestos Exposure Monitoring	1910.1001	Per Job	30 years	
Asbestos Employee Exposures	1910.1001	Per Employee	Duration of employment plus 30 years	
Asbestos Training Records	1910.1001	Annual	Duration of employment plus 1 year	

 13 Carcinogens 4-nitrobiphenyl; alpha-Naphthylamine; Methyl chloromethyl ether; 3,3'-Dichlorobenzidine (& salts); bis-Chloromethyl ether; beta-Naphthylamine; Benzidine; 4-Aminodiphenyl; Ethyleneimine; beta-Propiolactone; 2-Acetylaminofluorene; 4-Dimethylaminoazobenzene; N-Nitrosodimethylamine 	1910.1003 -1006	Annual	Duration of employment
Vinyl Chloride Monitoring and Medical Surveillance Reports	1910.1007	Annual	Duration of employment plus 20 years (not less than 30 years)
Inorganic Arsenic Monitoring and Medical Surveillance Reports	1910.1008	Annual	Duration of employment plus 20 years (not less than 40 years)
Lead Monitoring and Medical Surveillance Reports	1910.1025	Annual	Duration of employment plus 20 years (not less than 40 years)
Lead Exposure Medical Removal	1910.1025	As occurs	Duration of employment
Cadmium Exposure Monitoring	1910.1027	Annual	30 years
Cadmium Exposure Medical Surveillance	1910.1027	Annual	Duration of employment plus 30 years
Cadmium Exposure Training	1910.1027	Annual	1 year
Benzene Exposure Monitoring	1910.1028	Annual	30 years
Benzene Exposure Medical Surveillance	1910.1028	Annual	Duration of employment plus 30 years
Coke Oven Emission Monitoring and Medical Surveillance	1910.1029	Annual	Duration of employment plus 20 years (not less than 40 years)

Bloodborne Pathogens Training	1910.1030	Annual	3 years
Bloodborne Pathogens Exposure Incident Reports which include Hepatitis B Vaccine Status	1910.1030	As occurs	5 years (if no reported health effect) Duration of employment plus 30 years (if reported health effect)
Bloodborne Pathogens Sharps Injury Log	1910.1030	Annual	5 years
Cotton Dust Exposure Monitoring and Medical Surveillance	1910.1043	Annual	20 years
1,2-dibromo-3-chloropropane Exposure Monitoring and Medical Surveillance	1910.1044	Annual	Duration of employment plus 20 years (not less than 40 years)
Acrylonitrile Exposure Monitoring and Medical Surveillance	1910.1045	Annual	Duration of employment plus 20 years (not less than 40 years)
Ethylene Oxide (EtO) Exposure Monitoring	1910.1047	Annual	30 years
Ethylene Oxide (EtO) Medical Surveillance	1910.1047	Annual	Duration of employment plus 30 years
Formaldehyde Exposure Monitoring	1910.1048	Annual	30 years
Formaldehyde Medical Surveillance Records	1910.1048	Annual	Duration of employment plus 30 years
Methylenedianaline Exposure Monitoring	1910.1050	Annual	30 years
Methylenedianaline Medical Surveillance Records and Medical Removal Records	1910.1050	Annual	Duration of employment plus 30 years
1,3-Butadiene Exposure Monitoring Records	1910.1051	Annual	30 years
1,3-Butadiene Medical Surveillance Records	1910.1051	Annual	Duration of employment plus 30 years

Recordkeeping Requirements For Exposure and Medical Records

Methylene Chloride Exposure Monitoring Records	1910.1052	Annual	30 years
Methylene Chloride Medical Surveillance Records	1910.1052	Annual	Duration of employment plus 30 years
Ionizing Radiation (X-ray) Programs	1910.1096	Per program	3 years after superseded date
Ionizing Radiation (X-ray) Surveys	1910.1096	Annual or as needed	3 years
Ionizing Radiation (X-ray) License Agreements; Planned Special Exposures; Individual Monitoring Results; and Waste Disposal Records	1910.1096	Per company	3 years after termination of license agreement
Ionizing Radiation (X-ray) Individual Monitoring Results and Public Individual Monitoring Results	1910.1096	Annual or as needed	3 years after termination of license agreement
Laboratory Safety Chemical Exposure Monitoring	1910.1450	As deemed by specific chemical or regulation	Duration of employment plus 30 years

- Part Title: Occupational Safety and Health Standards
- Subpart: Z
- Subpart Title: Toxic and Hazardous Substances
- Standard Number: 1910.1020
- Title: Access to employee exposure and medical records.

1910.1020(a)

"Purpose." The purpose of this section is to provide employees and their designated representatives a right of access to relevant exposure and medical records; and to provide representatives of the Assistant Secretary a right of access to these records in order to fulfill responsibilities under the Occupational Safety and Health Act. Access by employees, their representatives, and the Assistant Secretary is necessary to yield both direct and indirect improvements in the detection, treatment, and prevention of occupational disease. Each employer is responsible for assuring compliance with this section, but the activities involved in complying with the access to medical records provisions can be carried out, on behalf of the employer, by the physician or other health care personnel in charge of employee medical records. Except as expressly provided, nothing in this section is intended to affect existing legal and ethical obligations concerning the maintenance and confidentiality of employee medical information, the duty to disclose information to a patient/employee or any other aspect of the medical-care relationship, or affect existing legal obligations concerning the protection of trade secret information.

1910.1020(b)

"Scope and application."

1910.1020(b)(1)

This section applies to each general industry, maritime, and construction employer who makes, maintains, contracts for, or has access to employee exposure or medical records, or analyses thereof, pertaining to employees exposed to toxic substances or harmful physical agents. 1910.1020(b)(2)

This section applies to all employee exposure and medical records, and analyses thereof, of such employees, whether or not the records are mandated by specific occupational safety and health standards.

1910.1020(b)(3)

This section applies to all employee exposure and medical records, and analyses thereof, made or maintained in any manner, including on an in-house or contractual (e.g., fee-for-service) basis. Each employer shall assure that the preservation and access requirements of this section are complied with regardless of the manner in which records are made or maintained.

1910.1020(c)

"Definitions."

1910.1020(c)(1)

"Access" means the right and opportunity to examine and copy.

1910.1020(c)(2)

"Analysis using exposure or medical records" means any compilation of data or any statistical study based at least in part on information collected from individual employee exposure or medical records or information collected from health insurance claims records, provided that either the analysis has been reported to the employer or no further work is currently being done by the person responsible for preparing the analysis.

1910.1020(c)(3)

"Designated representative" means any individual or organization to whom an employee gives written authorization to exercise a right of access. For the purposes of access to employee exposure records and analyses using exposure or medical records, a recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

1910.1020(c)(4)

"Employee" means a current employee, a former employee, or an employee being assigned or transferred to

work where there will be exposure to toxic substances or harmful physical agents. In the case of a deceased or legally incapacitated employee, the employee's legal representative may directly exercise all the employee's rights under this section.

1910.1020(c)(5)

"Employee exposure record" means a record containing any of the following kinds of information: 1910.1020(c)(5)(i)

Environmental (workplace) monitoring or measuring of a toxic substance or harmful physical agent, including personal, area, grab, wipe, or other form of sampling, as well as related collection and analytical methodologies, calculations, and other background data relevant to interpretation of the results obtained;

1910.1020(c)(5)(ii)

Biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems (e.g., the level of a chemical in the blood, urine, breath, hair, fingernails, etc.) but not including results which assess the biological effect of a substance or agent or which assess an employee's use of alcohol or drugs;

1910.1020(c)(5)(iii)

Safety Data Sheets indicating that the material may pose a hazard to human health; or

1910.1020(c)(5)(iv)

In the absence of the above, a chemical inventory or any other record which reveals where and when used and the identity (e.g., chemical, common, or trade name) of a toxic substance or harmful physical agent.

1910.1020(c)(6) 1910.1020(c)(6)(i)

"Employee medical record" means a record concerning the health status of an employee which is made or maintained by a physician, nurse, or other health care personnel, or technician, including: 1910.1020(c)(6)(i)(A)

Medical and employment questionnaires or histories (including job description and occupational exposures),

1910.1020(c)(6)(i)(B)

The results of medical examinations (pre-employment, pre-assignment, periodic, or episodic) and laboratory tests (including chest and other X-ray examinations taken for the purpose of establishing a base-line or detecting occupational illnesses and all biological monitoring not defined as an "employee exposure record"),

1910.1020(c)(6)(i)(C)

Medical opinions, diagnoses, progress notes, and recommendations,

1910.1020(c)(6)(i)(D)

First aid records,

1910.1020(c)(6)(i)(E)

Descriptions of treatments and prescriptions, and

1910.1020(c)(6)(i)(F)

Employee medical complaints.

1910.1020(c)(6)(ii)

"Employee medical record" does not include medical information in the form of:

1910.1020(c)(6)(ii)(A)

Physical specimens (e.g., blood or urine samples) which are routinely discarded as a part of normal medical practice, or

1910.1020(c)(6)(ii)(B)

Records concerning health insurance claims if maintained separately from the employer's medical program and its records, and not accessible to the employer by employee name or other direct personal identifier (e.g., social security number, payroll number, etc.), or

1910.1020(c)(6)(ii)(C)

Records created solely in preparation for litigation which are privileged from discovery under the applicable rules of procedure or evidence; or

1910.1020(c)(6)(ii)(D)

Records concerning voluntary employee assistance programs (alcohol, drug abuse, or personal counseling programs) if maintained separately from the employer's medical program and its records. 1910.1020(c)(7)

"Employer" means a current employer, a former employer, or a successor employer.

1910.1020(c)(8)

"Exposure" or "exposed" means that an employee is subjected to a toxic substance or harmful physical agent in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes past exposure and potential (e.g., accidental or possible) exposure, but does not include situations where the employer can demonstrate that the toxic substance or harmful physical agent is not used, handled, stored, generated, or present in the workplace in any manner different from typical non-occupational situations.

1910.1020(c)(9)

" Health Professional" means a physician, occupational health nurse, industrial hygienist, toxicologist, or epidemiologist, providing medical or other occupational health services to exposed employees. 1910.1020(c)(10)

"Record" means any item, collection, or grouping of information regardless of the form or process by which it is maintained (e.g., paper document, microfiche, microfilm, X-ray film, or automated data processing).

1910.1020(c)(11)

"Specific chemical identity" means a chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance. 1910.1020(c)(12) 1910.1020(c)(12)(i)

"Specific written consent" means a written authorization containing the following:

1910.1020(c)(12)(i)(A)

The name and signature of the employee authorizing the release of medical information,

1910.1020(c)(12)(i)(B)

The date of the written authorization,

1910.1020(c)(12)(i)(C)

The name of the individual or organization that is authorized to release the medical information,

1910.1020(c)(12)(i)(D)

The name of the designated representative (individual or organization) that is authorized to receive the released information,

1910.1020(c)(12)(i)(E)

A general description of the medical information that is authorized to be released,

1910.1020(c)(12)(i)(F)

A general description of the purpose for the release of the medical information, and 1910.1020(c)(12)(i)(G)

A date or condition upon which the written authorization will expire (if less than one year). 1910.1020(c)(12)(ii)

A written authorization does not operate to authorize the release of medical information not in existence on the date of written authorization, unless the release of future information is expressly authorized, and does not operate for more than one year from the date of written authorization. 1910.1020(c)(12)(iii)

A written authorization may be revoked in writing prospectively at any time.

1910.1020(c)(13)

"Toxic substance or harmful physical agent" means any chemical substance, biological agent (bacteria, virus, fungus, etc.), or physical stress (noise, heat, cold, vibration, repetitive motion, ionizing and non-ionizing radiation, hypo - or hyperbaric pressure, etc.) which:

1910.1020(c)(13)(i)

Is listed in the latest printed edition of the National Institute for Occupational Safety and Health (NIOSH) Registry of Toxic Effects of Chemical Substances (RTECS) which is incorporated by reference as specified in Sec. 1910.6; or

1910.1020(c)(13)(ii)

Has yielded positive evidence of an acute or chronic health hazard in testing conducted by, or known to, the employer; or

1910.1020(c)(13)(iii)

Is the subject of a Safety Data Sheet kept by or known to the employer indicating that the material may pose a hazard to human health.

1910.1020(c)(14)

"Trade secret" means any confidential formula, pattern, process, device, or information or compilation of information that is used in an employer's business and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.

1910.1020(d) "Preservation of records."

1910.1020(d)(1)

Unless a specific occupational safety and health standard provides a different period of time, each employer shall assure the preservation and retention of records as follows:

1910.1020(d)(1)(i)

"Employee medical records." The medical record for each employee shall be preserved and maintained for at least the duration of employment plus thirty (30) years, except that the following types of records need not be retained for any specified period:

1910.1020(d)(1)(i)(A)

Health insurance claims records maintained separately from the employer's medical program and its records,

1910.1020(d)(1)(i)(B)

First aid records (not including medical histories) of one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and the like which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job, if made on-site by a non-physician and if maintained separately from the employer's medical program and its records, and 1910.1020(d)(1)(i)(C)

The medical records of employees who have worked for less than (1) year for the employer need not be retained beyond the term of employment if they are provided to the employee upon the termination of employment.

1910.1020(d)(1)(ii)

"Employee exposure records." Each employee exposure record shall be preserved and maintained for at least thirty (30) years, except that:

1910.1020(d)(1)(ii)(A)

Background data to environmental (workplace) monitoring or measuring, such as laboratory reports and worksheets, need only be retained for one (1) year so long as the sampling results, the collection methodology (sampling plan), a description of the analytical and mathematical methods used, and a summary of other background data relevant to interpretation of the results obtained, are retained for at least thirty (30) years; and

1910.1020(d)(1)(ii)(B)

Safety Data Sheets and paragraph (c)(5)(iv) records concerning the identity of a substance or agent need not be retained for any specified period as long as some record of the identity (chemical name if known) of the substance or agent, where it was used, and when it was used is retained for at least thirty (30) years(1); and

1910.1020(d)(1)(ii)(C)

1910.1020(d)(2)

1910.1020(e) "Access to records" -

1910.1020(e)(1)

"General."

1910.1020(e)(1)(i)

Whenever an employee or designated representative requests access to a record, the employer shall assure that access is provided in a reasonable time, place, and manner. If the employer cannot reasonably provide access to the record within fifteen (15) working days, the employer shall within the fifteen (15) working days apprise the employee or designated representative requesting the record of the reason for the delay and the earliest date when the record can be made available. 1910.1020(e)(1)(ii)

The employer may require of the requester only such information as should be readily known to the requester and which may be necessary to locate or identify the records being requested (e.g. dates and locations where the employee worked during the time period in question).

1910.1020(e)(1)(iii)

Whenever an employee or designated representative requests a copy of a record, the employer shall assure that either:

1910.1020(e)(1)(iii)(A)

A copy of the record is provided without cost to the employee or representative,

1910.1020(e)(1)(iii)(B)

The necessary mechanical copying facilities (e.g., photocopying) are made available without cost to the employee or representative for copying the record, or

Footnote(1) Safety Data Sheets must be kept for those chemicals currently in use that are effected by the Hazard Communication Standard in accordance with 29 CFR 1910.1200(g).

Biological monitoring results designated as exposure records by specific occupational safety and health standards shall be preserved and maintained as required by the specific standard. 1910.1020(d)(1)(iii)

[&]quot;Analyses using exposure or medical records." Each analysis using exposure or medical records shall be preserved and maintained for at least thirty (30) years.

Nothing in this section is intended to mandate the form, manner, or process by which an employer preserves a record so long as the information contained in the record is preserved and retrievable, except that chest X-ray films shall be preserved in their original state.

1910.1020(e)(1)(iii)(C)

The record is loaned to the employee or representative for a reasonable time to enable a copy to be made.

1910.1020(e)(1)(iv)

In the case of an original X-ray, the employer may restrict access to on-site examination or make other suitable arrangements for the temporary loan of the X-ray.

1910.1020(e)(1)(v)

Whenever a record has been previously provided without cost to an employee or designated representative, the employer may charge reasonable, non-discriminatory administrative costs (i.e., search and copying expenses but not including overhead expenses) for a request by the employee or designated representative for additional copies of the record, except that

1910.1020(e)(1)(v)(A)

An employer shall not charge for an initial request for a copy of new information that has been added to a record which was previously provided; and

1910.1020(e)(1)(v)(B)

An employer shall not charge for an initial request by a recognized or certified collective bargaining agent for a copy of an employee exposure record or an analysis using exposure or medical records. 1910.1020(e)(1)(vi)

Nothing in this section is intended to preclude employees and collective bargaining agents from collectively bargaining to obtain access to information in addition to that available under this section. 1910.1020(e)(2)

"Employee and designated representative access" -

1910.1020(e)(2)(i)

"Employee exposure records."

1910.1020(e)(2)(i)(A)

Except as limited by paragraph (f) of this section, each employer shall, upon request, assure the access to each employee and designated representative to employee exposure records relevant to the employee. For the purpose of this section, an exposure record relevant to the employee consists of:

1910.1020(e)(2)(i)(A)(1)

A record which measures or monitors the amount of a toxic substance or harmful physical agent to which the employee is or has been exposed;

1910.1020(e)(2)(i)(A)(2)

In the absence of such directly relevant records, such records of other employees with past or present job duties or working conditions related to or similar to those of the employee to the extent necessary to reasonably indicate the amount and nature of the toxic substances or harmful physical agents to which the employee is or has been subjected, and

1910.1020(e)(2)(i)(A)(3)

Exposure records to the extent necessary to reasonably indicate the amount and nature of the toxic substances or harmful physical agents at workplaces or under working conditions to which the employee is being assigned or transferred.

1910.1020(e)(2)(i)(B)

Requests by designated representatives for unconsented access to employee exposure records shall be in writing and shall specify with reasonable particularity:

1910.1020(e)(2)(i)(B)(1)

The record requested to be disclosed; and

1910.1020(e)(2)(i)(B)(2)

The occupational health need for gaining access to these records.

1910.1020(e)(2)(ii)

"Employee medical records."

1910.1020(e)(2)(ii)(A)

Each employer shall, upon request, assure the access of each employee to employee medical records of which the employee is the subject, except as provided in paragraph (e)(2)(ii)(D) of this section.

1910.1020(e)(2)(ii)(B)

Each employer shall, upon request, assure the access of each designated representative to the employee medical records of any employee who has given the designated representative specific written consent. Appendix A to this section contains a sample form which may be used to establish specific written consent for access to employee medical records.

1910.1020(e)(2)(ii)(C)

Whenever access to employee medical records is requested, a physician representing the employer may recommend that the employee or designated representative:

1910.1020(e)(2)(ii)(C)(1)

Consult with the physician for the purposes of reviewing and discussing the records requested, 1910.1020(e)(2)(ii)(C)(2)

Accept a summary of material facts and opinions in lieu of the records requested, or 1910.1020(e)(2)(ii)(C)(3)

Accept release of the requested records only to a physician or other designated representative. 1910.1020(e)(2)(ii)(D)

Whenever an employee requests access to his or her employee medical records, and a physician representing the employer believes that direct employee access to information contained in the records regarding a specific diagnosis of a terminal illness or a psychiatric condition could be detrimental to the employee's health, the employer may inform the employee that access will only be provided to a designated representative of the employee having specific written consent, and deny the employee's request for direct access to this information only. Where a designated representative with specific written consent requests access to information so withheld, the employer shall assure the access of the designated representative to this information, even when it is known that the designated representative will give the information to the employee.

1910.1020(e)(2)(ii)(E)

A physician, nurse, or other responsible health care personnel maintaining employee medical records may delete from requested medical records the identity of a family member, personal friend, or fellow employee who has provided confidential information concerning an employee's health status.

1910.1020(e)(2)(iii)

Analyses using exposure or medical records.

1910.1020(e)(2)(iii)(A)

Each employer shall, upon request, assure the access of each employee and designated representative to each analysis using exposure or medical records concerning the employee's working conditions or workplace.

1910.1020(e)(2)(iii)(B)

Whenever access is requested to an analysis which reports the contents of employee medical records by either direct identifier (name, address, social security number, payroll number, etc.) or by information which could reasonably be used under the circumstances indirectly to identify specific employees (exact age, height, weight, race, sex, date of initial employment, job title, etc.), the employer shall assure that personal identifiers are removed before access is provided. If the employer can demonstrate that removal of personal identifiers from an analysis is not feasible, access to the personally identifiable portions of the analysis need not be provided.

1910.1020(e)(3)

"OSHA access."

1910.1020(e)(3)(i)

Each employer shall, upon request, and without derogation of any rights under the Constitution or the Occupational Safety and Health Act of 1970, 29 U.S.C. 651 "et seq.," that the employer chooses to exercise, assure the prompt access of representatives of the Assistant Secretary of Labor for Occupational Safety and Health to employee exposure and medical records and to analyses using exposure or medical records. Rules of agency practice and procedure governing OSHA access to employee medical records are contained in 29 CFR 1913.10.

1910.1020(e)(3)(ii)

Whenever OSHA seeks access to personally identifiable employee medical information by presenting to the employer a written access order pursuant to 29 CFR 1913.10(d), the employer shall prominently post a copy of the written access order and its accompanying cover letter for at least fifteen (15) working days.

1910.1020(f)

"Trade secrets."

1910.1020(f)(1)

Except as provided in paragraph (f)(2) of this section, nothing in this section precludes an employer from deleting from records requested by a health professional, employee, or designated representative any trade secret data which discloses manufacturing processes, or discloses the percentage of a chemical substance in mixture, as long as the health professional, employee, or designated representative is notified that information has been deleted. Whenever deletion of trade secret information substantially impairs evaluation of the place where or the time when exposure to a toxic substance or harmful physical agent occurred, the employer shall provide alternative information which is sufficient to permit the requesting party to identify where and when exposure occurred. 1910.1020(f)(2)

The employer may withhold the specific chemical identity, including the chemical name and other specific identification of a toxic substance from a disclosable record provided that:

1910.1020(f)(2)(i)

The claim that the information withheld is a trade secret can be supported;

1910.1020(f)(2)(ii)

All other available information on the properties and effects of the toxic substance is disclosed;

1910.1020(f)(2)(iii)

The employer informs the requesting party that the specific chemical identity is being withheld as a trade secret; and

1910.1020(f)(2)(iv)

The specific chemical identity is made available to health professionals, employees and designated representatives in accordance with the specific applicable provisions of this paragraph. 1910.1020(f)(3)

Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity of a toxic substance is necessary for emergency or first-aid treatment, the employer shall immediately disclose the specific chemical identity of a trade secret chemical to the treating physician or nurse, regardless of the existence of a written statement of need or a confidentiality agreement. The employer may require a written statement of need and confidentiality agreement, in accordance with the provisions of paragraphs (f)(4) and (f)(5), as soon as circumstances permit. 1910.1020(f)(4)

In non-emergency situations, an employer shall, upon request, disclose a specific chemical identity, otherwise permitted to be withheld under paragraph (f)(2) of this section, to a health professional, employee, or designated representative if:

1910.1020(f)(4)(i)

The request is in writing;

1910.1020(f)(4)(ii)

The request describes with reasonable detail one or more of the following occupational health needs for the information:

1910.1020(f)(4)(ii)(A)

To assess the hazards of the chemicals to which employees will be exposed;

1910.1020(f)(4)(ii)(B)

To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels; 1910.1020(f)(4)(ii)(C)

To conduct pre-assignment or periodic medical surveillance of exposed employees;

1910.1020(f)(4)(ii)(D)

To provide medical treatment to exposed employees;

1910.1020(f)(4)(ii)(E)

To select or assess appropriate personal protective equipment for exposed employees;

1910.1020(f)(4)(ii)(F)

To design or assess engineering controls or other protective measures for exposed employees; and 1910.1020(f)(4)(ii)(G)

To conduct studies to determine the health effects of exposure.

1910.1020(f)(4)(iii)

The request explains in detail why the disclosure of the specific chemical identity is essential and that, in lieu thereof, the disclosure of the following information would not enable the health professional, employee or designated representative to provide the occupational health services described in paragraph (f)(4)(ii) of this section;

1910.1020(f)(4)(iii)(A)

The properties and effects of the chemical;

1910.1020(f)(4)(iii)(B)

Measures for controlling workers' exposure to the chemical;

1910.1020(f)(4)(iii)(C)

Methods of monitoring and analyzing worker exposure to the chemical; and

1910.1020(f)(4)(iii)(D)

Methods of diagnosing and treating harmful exposures to the chemical;

1910.1020(f)(4)(iv)

The request includes a description of the procedures to be used to maintain the confidentiality of the disclosed information; and

1910.1020(f)(4)(v)

The health professional, employee, or designated representative and the employer or contractor of the services of the health professional or designated representative agree in a written confidentiality agreement that the health professional, employee or designated representative will not use the trade secret information for any purpose other than the health need(s) asserted and agree not to release the information under any circumstances other than to OSHA, as provided in paragraph (f)(7) of this section, except as authorized by the terms of the agreement or by the employer.

1910.1020(f)(5)

The confidentiality agreement authorized by paragraph (f)(4)(iv) of this section:

1910.1020(f)(5)(i)

May restrict the use of the information to the health purposes indicated in the written statement of need;

1910.1020(f)(5)(ii)

May provide for appropriate legal remedies in the event of a breach of the agreement, including stipulation of a reasonable pre-estimate of likely damages; and,

1910.1020(f)(5)(iii)

May not include requirements for the posting of a penalty bond.

1910.1020(f)(6)

Nothing in this section is meant to preclude the parties from pursuing non-contractual remedies to the extent permitted by law.

1910.1020(f)(7)

If the health professional, employee or designated representative receiving the trade secret information decides that there is a need to disclose it to OSHA, the employer who provided the information shall be informed by the health professional prior to, or at the same time as, such disclosure.

1910.1020(f)(8)

If the employer denies a written request for disclosure of a specific chemical identity, the denial must: 1910.1020(f)(8)(i)

Be provided to the health professional, employee or designated representative within thirty days of the request;

1910.1020(f)(8)(ii)

Be in writing;

1910.1020(f)(8)(iii)

Include evidence to support the claim that the specific chemical identity is a trade secret;

1910.1020(f)(8)(iv)

State the specific reasons why the request is being denied; and,

1910.1020(f)(8)(v)

Explain in detail how alternative information may satisfy the specific medical or occupational health need without revealing the specific chemical identity.

1910.1020(f)(9)

The health professional, employee, or designated representative whose request for information is denied under paragraph (f)(4) of this section may refer the request and the written denial of the request to OSHA for consideration.

1910.1020(f)(10)

When a health professional, employee, or designated representative refers a denial to OSHA under paragraph (f)(9) of this section, OSHA shall consider the evidence to determine if:

1910.1020(f)(10)(i)

The employer has supported the claim that the specific chemical identity is a trade secret;

1910.1020(f)(10)(ii)

The health professional employee, or designated representative has supported the claim that there is a medical or occupational health need for the information; and

1910.1020(f)(10)(iii)

The health professional, employee or designated representative has demonstrated adequate means to protect the confidentiality.

1910.1020(f)(11) 1910.1020(f)(11)(i)

If OSHA determines that the specific chemical identity requested under paragraph (f)(4) of this section is not a "bona fide" trade secret, or that it is a trade secret but the requesting health professional, employee or designated representatives has a legitimate medical or occupational health need for the information, has executed a written confidentiality agreement, and has shown adequate means for complying with the terms of such agreement, the employer will be subject to citation by OSHA.

1910.1020(f)(11)(ii)

If an employer demonstrates to OSHA that the execution of a confidentiality agreement would not provide sufficient protection against the potential harm from the unauthorized disclosure of a trade secret specific chemical identity, the Assistant Secretary may issue such orders or impose such additional limitations or conditions upon the disclosure of the requested chemical information as may be appropriate to assure that the occupational health needs are met without an undue risk of harm to the employer.

1910.1020(f)(12)

Notwithstanding the existence of a trade secret claim, an employer shall, upon request, disclose to the Assistant Secretary any information which this section requires the employer to make available. Where there is a trade secret claim, such claim shall be made no later than at the time the information is provided to the Assistant Secretary so that suitable determinations of trade secret status can be made and the necessary protections can be implemented.

1910.1020(f)(13)

Nothing in this paragraph shall be construed as requiring the disclosure under any circumstances of process or percentage of mixture information which is a trade secret.

1910.1020(g)

"Employee information."

1910.1020(g)(1)

Upon an employee's first entering into employment, and at least annually thereafter, each employer shall inform current employees covered by this section of the following:

1910.1020(g)(1)(i)

The existence, location, and availability of any records covered by this section;

1910.1020(g)(1)(ii)

The person responsible for maintaining and providing access to records; and

1910.1020(g)(1)(iii)

Each employee's rights of access to these records.

1910.1020(g)(2)

Each employer shall keep a copy of this section and its appendices, and make copies readily available, upon request, to employees. The employer shall also distribute to current employees any informational materials concerning this section which are made available to the employer by the Assistant Secretary of Labor for Occupational Safety and Health.

1910.1020(h)

"Transfer of records."

1910.1020(h)(1)

Whenever an employer is ceasing to do business, the employer shall transfer all records subject to this section to the successor employer. The successor employer shall receive and maintain these records.

1910.1020(h)(2)

Whenever an employer is ceasing to do business and there is no successor employer to receive and maintain the records subject to this standard, the employer shall notify affected current employees of their rights of access to records at least three (3) months prior to the cessation of the employer's business.

Part Title: Occupational Safety and Health Standards Subpart: Z Subpart Title: Toxic and Hazardous Substances Appendix A – See "Access to Employee Exposure and Medical Records – Release of Medical or Exposure Records Consent Form"

Part Title: Occupational Safety and Health Standards Subpart: Z Subpart Title: Toxic and Hazardous Substances Standard Number: *1910.1020 App B*

Title: Availability of NIOSH registry of toxic effects of chemical substances (RTECS)(Nonmandatory)

The final standard, 29 CFR 1910.1020, applies to all employee exposure and medical records, and analyses thereof, of employees exposed to toxic substances or harmful physical agents (paragraph (b)(2)). The term "toxic substance or harmful physical agent" is defined by paragraph (c)(13) to encompass chemical substances, biological agents, and physical stresses for which there is evidence of harmful health effects. The regulation uses the latest printed edition of the National Institute for Occupational Safety and Health (NIOSH) Registry of Toxic Effects of Chemical Substances (RTECS) as one of the chief sources of information as to whether evidence of harmful health effects exists. If a substance is listed in the latest printed RTECS, the regulation applies to exposure and medical records (and analyses of these records) relevant to employees exposed to the substance.

It is appropriate to note that the final regulation does not require that employers purchase a copy of RTECS, and many employers need not consult RTECS to ascertain whether their employee exposure or medical records are subject to the rule. Employers who do not currently have the latest printed edition of the NIOSH RTECS, however, may desire to obtain a copy. The RTECS is issued in an annual printed edition as mandated by section 20(a)(6) of the Occupational Safety and Health Act (29 U.S.C. 669(a)(6)).

The introduction to the 1980 printed edition describes the RTECS as follows:

"The 1980 edition of the Registry of Toxic Effects of Chemical Substances, formerly known as the Toxic Substances list, is the ninth revision prepared in compliance with the requirements of Section 20(a)(6) of the Occupational Safety and Health Act of 1970 (Public Law 91-596). The original list was completed on June 28, 1971, and has been updated annually in book format. Beginning in October 1977, quarterly revisions have been provided in microfiche. This edition of the Registry contains 168,096 listings of chemical substances; 45,156 are names of different chemicals with their associated toxicity data and 122,940 are synonyms. This edition includes approximately 5,900 new chemical compounds that did not appear in the 1979 Registry.(p. xi)

"The Registry's purposes are many, and it serves a variety of users. It is a single source document for basic toxicity information and for other data, such as chemical identifiers and information necessary for the preparation of safety directives and hazard evaluations for chemical substances. The various types of toxic effects linked to literature citations provide researchers and occupational health scientists with an introduction to the toxicological literature, making their own review of the toxic hazards of a given substance easier. By presenting data on the lowest reported doses that produce effects by several routes of entry in various species, the Registry furnishes valuable information to those responsible for preparing safety data sheets for chemical substances in the workplace. Chemical and production engineers can use the Registry to identify the hazards which may be associated with chemical intermediates in the development of final products, and thus can more readily select substitutes or alternate processes which may be less hazardous. Some organizations, including health agencies and chemicals in their files to reference toxicity information associated with those chemicals. By including foreign language chemical names, a start has been made toward providing rapid identification of substances produced in other countries.(p xi)

"In this edition of the Registry, the editors intend to identify "all known toxic substances" which may exist in the environment and to provide pertinent data on the toxic effects from known doses entering an organism by any route described.(p xi)

"It must be reemphasized that the entry of a substance in the Registry does not automatically mean that it must be avoided. A listing does mean, however, that the substance has the documented potential of being harmful if misused, and care must be exercised to prevent tragic consequences. Thus the Registry lists many substances that are common in everyday life and are in nearly every household in the United States. One can name a variety of such dangerous substances: prescription and non-prescription drugs; food additives; pesticide concentrates, sprays, and dusts; fungicides; herbicides, paints; glazes, dyes; bleaches and other household cleaning agents; alkalis; and various solvents and diluents. The list is extensive because chemicals have become an integral part of our existence."

The RTECS printed edition may be purchased from the Superintendent of Documents, U.S. Government Printing Office (GPO), Washington, DC 20402 (202-783-3238).

Some employers may desire to subscribe to the quarterly update to the RTECS which is published in a microfiche edition. An annual subscription to the quarterly microfiche may be purchased from the GPO (Order the "Microfiche Edition, Registry of Toxic Effects of Chemical Substances"). Both the printed edition and the microfiche edition of RTECS are available for review at many university and public libraries throughout the country. The latest RTECS editions may also be examined at the OSHA Technical Data Center, Room N2439 - Rear, United States Department of Labor, 200 Constitution Avenue, N.W., Washington, DC 20210 (202-523-9700), or at any OSHA Regional or Area Office (See, major city telephone directories under United States Government - Labor Department).

TRAINING ATTENDANCE ROSTER ACCESS TO EXPOSURE AND MEDICAL RECORDS

Access to Employee Exposure and Medical Records Training Includes:

- Purpose of Regulation
- · What is access
- · What records are kept and for how long
- · How to access records
- · Company and employee rights
- Trade secret protections
- Transfer and disposal of records
- Release consent for records

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

Name of Interpreter, if utilized: _

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
- 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 Encourage employees to report accidents and incidents.
 - 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.

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 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.
- 4.2 Hazard Reporting:
 - 4.2.1 Hazards or potential hazards identified by employees will immediately be reported to management or supervision.
 - 4.2.1.1 Person reporting hazard
 - 4.2.1.1.1 Notify department Supervisor of the hazard.
 - 4.2.1.1.2 Initiate lock-out/tag-out, if required, on the machine.
 - 4.2.1.2 Supervisor
 - 4.2.1.2.3 Notify all affected workers of hazard.
 - 4.2.1.2.4 Notify Maintenance Department of hazard, if required.
 - 4.2.1.2.5 Ensure hazard is properly marked and controlled until corrected.
- 4.3 <u>Accident Investigation, Analysis and Reporting</u>. 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.
 - 4.3.1 Immediate concerns:
 - 4.3.1.1 Ensure any injured person receives proper care.
 - 4.3.1.2 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.
 - 4.3.1.3 Start the investigation promptly.

- 4.3.2 <u>Accident Investigation and Reporting Form</u>. 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.
 - 4.3.2.1 Injured employee's name and any other identifier
 - 4.3.2.2 Employee's address
 - 4.3.2.3 Date and time of injury
 - 4.3.2.4 Shift and department
 - 4.3.2.5 Sex/DOB
 - 4.3.2.6 Length of service (hire date) and length of time at specific job
 - 4.3.2.7 Time shift started
 - 4.3.2.8 Physician's and hospital name (if transported)
 - 4.3.2.9 Indication if employee was hospitalized as an in-patient (i.e. overnight)
 - 4.3.2.10 Type of injury
 - 4.3.2.11 Body part or body system injured
 - 4.3.2.12 Resulting fatalities (date of death)
 - 4.3.2.13 Occupation or task being performed just prior to being injured
 - 4.3.2.14 Description and analysis of accident
 - 4.3.2.15 Indication of the object or substance that directly harmed the employee
 - 4.3.2.16 Name of person completing form, their title, phone number and the date
- 4.3.3 Additional information that is recommended on the form is:
 - 4.3.3.1 Time shift started
 - 4.3.3.2 Overtime length when injury occurred
 - 4.3.3.3 Action taken to prevent recurrence
 - 4.3.3.4 Employee's statement

- 4.3.3.5 Witnesses' statement
- 4.3.3.6 Employer's statement
- 4.3.3.7 Name of person(s) reviewing form and date of review
- 4.4 <u>Accident Investigation Review Team</u>. 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.
- 4.5 Accident Investigation Final Report. The report will include but is not limited to the following:
 - 4.5.1 Investigation report form and pertinent data
 - 4.5.2 Photographs/drawings/exhibits of scene
 - 4.5.3 Narrative of accident
 - 4.5.4 Sequence of events
 - 4.5.5 Contributing information
 - 4.5.6 Findings and recommendations of review team
 - 4.5.7 Action items and completion dates
 - 4.5.8 Responsible persons
 - 4.5.9 Follow-up procedures to ensure completion
 - 4.5.10 Distribution list
- 4.6 <u>Safety and Job Hazard Analysis</u>. 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.
 - 4.6.1 Workstation Analysis. Workstation analysis will be conducted to identify risk factors present in each job or workstation.

5. Safety Information:

5.1 <u>Administrative Controls</u>. 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 <u>Medical Management</u>. 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 <u>Recordability criteria</u>. 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 <u>Occupational injuries</u>. 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 <u>Periodic Workplace Walk-throughs</u>. 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 <u>List of Jobs</u>. 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 <u>Employee Training and Education</u>. 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.

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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.
- Ø 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:	Time: AM PM			
Occupation	Occupation			Shift			
Department			SS#:				
Employee Home	Address:		Date of Birth:				
			Date of Hire				
	Gender: Male Female						
		PART 2 SUPPLE	MENTARY INFORMA	TION			
Company							
Mailing Address							
City		State		Zip			
Telephone ()						
Accident Location	n 🛛 🗆 Same	e as establishment?	D On premises	? (Ch	eck if applies)		
Location Where	Accident Occurred	(if different from ab	ove):				
Remarks:							
Was injured pers	on performing reg	ular job at time of ac	ccident?	🗆 No			
Describe activity	the person was do	ing just before they	were injured:				
Length of Service: With Employer On this job							
Time shift started AM PM Overtime? Yes No							
Name and address of physician:							
Citv		State		Zip			
Employee treated	Employee treated in an emergency room? Yes No Employee bospitalized overnight? Yes No					No	
If hospitalized, na	me and address o	f hospital:			<u> </u>		
City		State		Zip			
Fatality? Yes No If Yes, date of death							
PART 3 ACCIDENT TREE							
NATURE OF INJURT OR ILLNESS: PART OF BODY AFFECTED:							
Operation Location:	Operation Task:	Employee Task:	Employee Body Position/Activity	Agency	Preceding Situation or Event	Type of Accident	

DECODIDTIC	Vele
DESURIFIIC	

Fully describe accident:					
What factors led to the acciden	t (from Part 3/Tree)?				
MACHINERY/EQUIPMENT IN	VOLVED				
Manufacturer				Equip. age	
Serial No.		Model			
Function					
Location					
Has machine/equipment been	modified?	🛛 No		If so, when?	
Was it guarded? D Yes	□ No				
If Yes, describe guarding and h	low it functions to provide	e element of safet	y desired:		
Was guarding properly:	Constructed?	□ Yes	🛛 No		
	Installed?	□ Yes	🛛 No		
	Adjusted?	□ Yes	D No		
If No to any of above, explain:					
Was there any mechanical failu	ıre? □ Yes □	No If ye	es, explain:		
If construction related, date of o	contract:				
Is firm					
Name of other contractors					
List any weather conditions that contributed to the incident:					
TRAINING					
Did employee receive specific t	raining or instructions re	lating to safety and	d health on the j	job being performed?	
Instructed by:					
When instructed:		Length of tra	lining:		

PERSONAL PROTECTIVE EQUIPMEN	IT					
Did employee use any protective equipment for the job or task performed?						
Туре:						
Did equipment fail?	Did equipment fail?					
If so, describe:						
CORRECTIVE ACTIONS:						
Were any corrective or preventive action	ns put into place due to the incident?	🗆 Yes 🔲 No				
If so, list them:						
Action Taken	Expected Result	Expected Completion Date				
Were corrective actions followed through	h to completion? Yes No					
If so, list results and dates:						
Action Taken	Expected Result	Expected Completion Date				
ST	ATEMENTS CONCERNING ACCIDEN	т				
STATEMENTS CONCERNING ACCIDENT						
EMPLOYEE STATEMENT CONCERNING ACCIDENT						
Name T	itle	Date				
SUPERVISOR/EMPLOYER'S STATEMENT						
		-				
Name T	itle	Date				
	WITNESS STATEMENT					
Name T	itle	Date				
	SAFETT COMMITTEE COMMENTS					
Name T	itle	Date				
ATTACH ADDITIONAL COMMENTS, R	EPORTS AND PHOTOS ON NEXT P	AGE				

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	S	IGNATURE		
By signing below 1 attest that I have	attended the safety training fo	r the topic indicated, and will abide by		
the safety information procedures ru	iles regulations and/or compa	ny policy as presented and instructed		
the safety mornation, procedules, it		ny poncy as presented and manucled.		

Name of Interpreter, if utilized:

TRAINING ATTENDANCE ROSTER ACCIDENT REPORTING

Accident Peporting Training for	Assidant Departing Training for Frankrusse Includes					
Why do accidents happen	Accident Reporting Training for Employees includes:					
Why do accidents happen						
What to report and when						
- When to call for help	When to call for help					
• Emergency Contact Inform	alion					
INSTRUCTOR:	<u>DATE:</u>	LOCATION:				
NAME (Please Print) FIRST - MI - LAST	Sie	GNATURE				
By signing below, I attest that I have the safety information, procedures, ru	attended the safety training for iles, regulations and/or compared	the topic indicated, and will abide by ny policy as presented and instructed.				

Name of Interpreter, if utilized:

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PROGRAM OVERVIEW

AERIAL LIFT SAFETY PROGRAM

REGULATORY STANDARD OSHA - 29 CFR 1926.453

INTRODUCTION

Aerial Lift includes boom-supported aerial platforms, such as cherry pickers or bucket trucks. This safety program is intended to address the issues of employee training, safety requirements, maintenance, and general operation of Aerial Lift.

TRAINING

Employees trained prior to use in both a classroom component and an assessment of the operator performance with the equipment.

ACTIVITIES

- · Identify the tasks that require an aerial lift
- Write and communicate workplace specific procedures that outline the operation, and limitations, of aerial lifts
- · Maintain manufacturer's requirements, limits and documentation
- · Conduct documented daily inspections prior to use
- · Implement, maintain, and inspect fall arrest systems as required
- Annually evaluate the aerial lift program to assure it is relevant and functioning properly

FORMS

- Aerial Lift Operator Checklist
- Aerial Lift Operator Evaluation Assessment
- Aerial Lift Training Wallet Cards
- Training Attendance Roster

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

AERIAL LIFT SAFETY PROGRAM

- 1. **Purpose.** This document defines the process for managing Aerial Lift.
- 2. **Scope.** Applies to all locations where Aerial Lift are used or maintained. This procedure covers operator selection, training, equipment operations, and maintenance.

3. Responsibilities

- **3.1.** Management will:
 - 3.1.1. Identify the tasks that require an aerial lift.
 - 3.1.2. Assure the correct type of equipment is purchased.
 - 3.1.3. Document workplace specific procedures that outline the operation, and limitations, of Aerial Lift.
 - 3.1.4. Assure operators are trained.
 - 3.1.5. Annually evaluate the aerial lift program to assure it is relevant and functioning properly.

4. Procedure.

- 4.1. Aerial Lift Requirements
 - 4.1.1. Any use of an aerial lift must be in accordance with the requirements and limits identified in the owner's manual from the manufacturer. Develop and document appropriate workplace specific rules and procedures, where required.
 - 4.1.2. Aerial Lift may be "field modified" for uses other than those intended by the manufacturer, provided the modifications have been verified in writing by the manufacturer or by any other equivalent entity to be in conformity with all applicable provisions of ANSI A92.2 1969 and OSHA 1926.453 and to be at least as safe as the equipment was before modification.
 - 4.1.3. The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.
 - 4.1.4. Articulating boom and extensible boom platforms, designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls must be plainly marked as to their function.
 - 4.1.5. Manufacturers' manuals are available and stored in the weatherproof containers on the lifts or in the mobile units.
 - 4.1.6. The aerial lift must have a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when a spotter is used.

4.2. Lift Operations

- 4.2.1. Ensure that equipment is inspected each day prior to use to determine that controls are in safe working condition.
- 4.2.2. Fall arrest system lanyards must be used and attached to the anchor point on the floor of the basket or the boom of the lift. Securing the lanyard to an adjacent pole, structure, or equipment, or to the railings of the basket while working from an aerial lift shall NOT be permitted. If employees are required to leave the basket and are subjected to a fall hazard, as second lanyard must be used to ensure that fall protection requirements are continuous.
- 4.2.3. Employees shall always stand firmly on the floor of the basket and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
- 4.2.4. Full body harnesses (as part of a personal fall arrest system) will be worn and a lanyard attached to the boom or basket when working.
- 4.2.5. The manufacturer's boom and basket weight limits shall not be exceeded.
- 4.2.6. The brakes shall be set and when outriggers are used, they shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline provided they can be safely installed.
- 4.2.7. The base or body of the aerial lift truck shall not be moved when the boom is elevated in a working position with employees in the basket, except for equipment which is specifically designed for this type of operation.
- 4.2.8. Climbers (or similar spiked shoes) may not be worn while performing work from the aerial lift.
- 4.2.9. Never allow an aerial lift to be used as a crane or material-lifting device.
- 4.2.10. A hard hat shall be worn at all times when operating Aerial Lift.
- 4.2.11. Entry gates or chains shall be closed before operating the lift.
- 4.2.12. For aerial lifts that have both upper and lower controls, the lower controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
- 4.2.13. Before moving an aerial lift for travel, the boom must be inspected to see that it is properly cradled and outriggers are in the stowed position.
- 4.2.14. When moving the vehicle in reverse, the signal alarm must be audible above the surrounding noise level or a spotter must be used to signal that it is safe.

- 4.2.15. When required to exit or climb out of an elevated aerial lift to a location not otherwise protected by guardrails, floor, or other continuous means of fall protection, operators shall use a second shock-absorbing lanyard to connect to the new location before disconnecting from the aerial lift. When entering an aerial lift from an unprotected location, operators shall connect a shock-absorbing lanyard to the anchorage point in the aerial lift before entering.
- 4.2.16. Employees should not position themselves between overhead hazards, such as joists and beams, and the rails of the basket. If such positioning is required, the fall protection system must account for the shorter distance to the hazard in case of a fall.
- 4.2.17. Never override hydraulic, mechanical, or electrical safety devices.
- 4.2.18. Always treat power lines, wires and other conductors as energized, even if they are down or appear to be insulated.
- 4.2.19. Operators shall maintain safe distances from electrical power lines, conductors or bus bars. Operators must allow for boom or platform movement or electrical line sway or sag. Operators shall follow minimum safe approach distances (MSAD). <u>At no time will an operator position the bucket closer than 10' from any electrical source.</u>
 - MSAD (Minimum Safe Approach Distance) to Energized (Exposed or Insulated) Power Lines

Voltage Range (Phase to Phase) Minimum Safe Approach Distance

0 to 300V	10'
Over 300 to 50KV	10'
Over 50KV to 200KV	15'
Over 200KV to 350KV	20'
Over 350KV to 500KV	25'
Over 500KV to 750KV	35'
Over 750KV to 1000K	V 45'

- 4.3. Records and Documentation:
 - 4.3.1. Workplace specific training (initial and retraining) records. An Operator Evaluation Form must be retained.
 - 4.3.2. Training records for current operators must be retained for the duration they will operate the lift. Records should be retained for 3 years after this point.
 - 4.3.3. Documentation of daily lift inspection must be maintained.

5. Safety Information.

- 5.1. Fuel tanks may not be filled while the engine is running.
- 5.2. Fuel caps must be in place before starting.
- 5.3. Liquid fuels such as gasoline and diesel fuel must be handled in accordance with NFPA standards for Flammable and Combustible Liquids.
- 5.4. The operator must conduct a safety / circle check of the vehicle to determine hazards.
- 5.5. The operator must conduct a worksite inspection.
- 5.6. Perform electrical system safety tests on aerial lift devices per ANSI/SIA A92.2 requirements.
- 5.7. Inspect hydraulic and pneumatic system components (Busting Safety Factor) on aerial lift devices per ANSI/SIA A92.2 requirements.
- 5.8. Conduct welding operations on aerial lift devices per Automotive Welding Society (AWS) Standards.

6. Training and Information.

- 6.1. Training must occur before operators are allowed to operate an aerial lift unsupervised, and such operations may not endanger either the operators or the trainee.
 - 6.1.1. Initial information (classroom, discussion)
 - 6.1.2. Evaluation and instruction on the operation of the aerial lift at the workplace.
- 6.2. Initial Training must provide for:
 - 6.2.1. Operation training provides skills and knowledge related to the lift the operator is authorized to drive. These include: inspections, controls, vehicle stability and capacity and any specific operating limitations.
 - 6.2.2. An evaluation of the operator, in the workplace, performing typical aerial lift tasks must occur initially.

7. Definitions.

7.1. Aerial Lift – Aerial Lift include the following types of devices used to elevate personnel to job-sites above ground, extensible boom platforms, aerial ladders, articulating boom platforms and vertical towers. The equipment may be powered or manually operated and are deemed to be Aerial Lift whether or not they are capable of rotating about a substantially vertical axis.

Left blank intentionally

AERIAL LIFT OPERATOR CHECKLIST

tems to Be Inspected				
Emergency controls are in proper working condition (Emergency Stop Device and emergency lowering function)				
Safety devices are functional (Foot pedal, spring lock, etc.)				
All safety indicator lights work properly and notion alarms are	functional			
Fire extinguisher on platform				
All controls function properly, are clean and clearly labeled				
Ground operating controls successfully over-ride the aerial co	ontrols			
Fuel level is acceptable and the system is not leaking				
Hydraulic level is acceptable and the system is not leaking				
Are there any loose or missing parts (Bolts, fasteners, braces	s, brackets, etc.)			
Work platform is clean, dry and clear of debris				
Tires, wheels, and lug nuts are in good condition				
No defects such as cracked welds, damaged control cables, or other obvious damage	damaged wire harness			
Slide pad is not worn down				
Braking devices are operating properly				
The manufacturer's operations manual is stored on the lift (in all languages of the operators)				
Boom and lift pivot pins are in good working order				
All switch and mechanical guards are in good condition and p	properly installed			
Platform gate and Guardrails are in place and in good condit	ion 🗌			
Other personal protective devices are in good condition				
Stabilizers, outriggers and/or extending axles function properly				
Working lights are operational				
Control Markings are in place and legible				
All manufacturer required inspections of all hydraulic control relief valves and other manufacturer requirements have been completed within the required time period (Check inspection sticker on equipment for validation)				
Battery indicator shows an acceptable level remaining				
Is the total load within the rated capacity				
AERIAL LIFT INSPECTED BY:				
Signature:	Date:			
Aerial lift is safe to operate?Yes No				
Comments:				

	AERIAL LIFT OPERATOR EVALUATION ASSESSMENT This form (or its equivalent) must be retained for records management						
Equipm	nent O	perated (make/model):					
Name o	Name of Operator: Employee Identification#: Date:			Date:			
Signatu	ire of	Operator:	Signa	ture o	of Evaluator:		
YES	NO	Activity	YES NO Activity			ty	
		Performs pre-shift checks					
		UNDERSTAN	NDS C	ONTR	ROLS		
		Forward/reverse			Service brake		
		Steering technique			Instrumentation		
		Parking brakes			Attachment		
	TRUCK HANDLING						
		Smooth starts/stops	Smooth/controlled turns				
		Inching/plugging			Clears obstacles safely		
		Approach is square	Proper maneuvering speed				
		Proper traveling height	Looks in travel direction				
PARKING PROCEDURES							
		Lowers lift to lowest level			Dismounts safely		
		Truck in neutral			Uses wheel chocks or	n ramps	
		Applies parking brake			Turns off fuel supply		
		Power shut off					
		LOAD	HANDI	ING			
		Lift/lower technique	Comments:				
		Smooth starts/stops	1				
	Proper truck speed						
SAFETY							
		Uses horn as required			Uses proper operation	nal speed	
		Wears PFAS, as needed			Stops at major interse	ections	
		Uses intersection mirrors, as			Yields right-of-way		

Aerial Lift Training Wallet Cards



TRAINING ATTENDANCE ROSTER AERIAL LIFT				
<u>DATE:</u>	LOCATION:			
	SIGNATURE			
es, regulations and/or comp	bany policy as presented and instructed.			
	G ATTENDANC AERIAL LIFT			

Name of Interpreter, if utilized:

10

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.

Ø None at this time

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	SIGNATURE	
By signing below, I attest that I have attended the safety training for the topic indicated, and will abide be the safety information, procedures, rules, regulations and/or company policy as presented and instructe		

Name of Interpreter, if utilized: _____

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.
- Ø 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.
- Ø 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.

4

BLOOD AND BODILY FLUIDS (INCIDENTAL) EXPOSURE TRAINING ATTENDANCE ROSTER			
Training Content: • What is a BBP • Types of diseases • Precautions and PPE • Spill Cleanup • Waste Disposal • Exposure Incident Process	Instructor Name:	Date of Training:	
NAME (Please Print) FIRST - MI - LAST	SIGNATURE	JOB TITLE	
	regulations and/or company policy as prese	ented and instructed.	

Name of Interpreter, if utilized:

PROGRAM OVERVIEW

CONSTRUCTION SAFETY PROGRAM

REGULATORY STANDARD:

OSHA – 29 CFR 1910 OSHA – 29 CFR 1926

INTRODUCTION: Outlines the safety requirements for a construction company. It provides guidance for tool selection, housekeeping, PPE, fall protection, and for the identification and control of other general construction industry hazards.

TRAINING:

- Employees will be trained on safety policies and procedures as well as the hazards posed by their work assignment for each construction site or job.

ACTIVITIES:

- Every construction job is unique and each must be assessed to identify its potential health and safety risks and communicate the identified hazards to employees
- Review operations for additional activities which could impact both contractors and employees
- · Write and communicate polices and procedures
- Conduct compliance audits when contractors are on site

FORMS:

- Training Attendance Roster
- As needed:
 - **§** First Aid Kit Supply Requirements
 - **§** On-site Code of Safe Practices

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- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
- 5. Safety Information
- 6. Training Information & Requirements
- 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 and will be communicated to all required personnel. It encompasses the total workplace regardless of the number of workers employed or the number of work shifts. The company will review and evaluate this safety program:
 - 1.1 When changes occur to 29 CFR that prompt a revision.
 - 1.2 When changes occur to any related regulatory document that prompts a revision of this document.
 - 1.3 When facility operational changes occur that require a revision of this document.
- 2. Scope. This program applies to all construction job sites and company employees.

3. Responsibilities.

- 3.1 Management:
 - 3.1.1 Provide sufficient human and financial resources to address federal, state, and local safety and health compliance.
 - 3.1.2 Assign compliance and general safety and health responsibilities to the Safety Officer (or other specifically designated person).
 - 3.1.3 Establish employee safety and health management goals.
 - 3.1.4 Review company safety and health management performance at least annually.
 - 3.1.5 Hold managers accountable for safety and health performances through annual performance appraisals or at the completion of each job.
- 3.2 Project Managers:
 - 3.2.1 Assess each job to identify overall safety and health hazards and reassess as new components of the job begin.
 - 3.2.2 Develop safety rules and job procedures necessary to eliminate or control hazards.

- 3.2.3 Conduct employee orientation and on-the-job training.
- 3.2.4 Conduct scheduled employee safety meetings.
- 3.2.5 Conduct on-going informal hazard identification checks, inspections and scheduled formal audits.
- 3.2.6 Report all incidents as required.
- 3.2.7 Investigate and document all accidents per accident investigation procedures.
- 3.2.8 Support and enforce all company, department, and job specific safety rules, policies and procedures and utilize disciplinary procedures as described in the company's Employee Handbook.
- 3.2.9 Maintain required safety documentation (training, incident reports, equipment records, inspection/audit information, etc.).
- 3.3 Job Site Supervisor:
 - 3.3.1 Implement safe conditions, work practices enforcement of safety rules, laws and procedures in the daily supervision of all employees.
 - 3.3.2 Ensure that each employee is provided with and wears the prescribed personal protective equipment that is necessary for the task at hand.
 - 3.3.3 Ensure that all employees are informed of the safety rules for the job site or work location.
 - 3.3.4 Enforce all safety rules and regulations.
 - 3.3.5 Instruct employees on the recognized hazards of the job and how to avoid and report unsafe conditions.
 - 3.3.6 Ensure that all regulatory standards for repair and maintenance of equipment are followed.
 - 3.3.7 Ensure that all defective or damaged equipment is tagged and removed form the work site immediately until repaired or replaced.
 - 3.3.8 Assist in the scheduled safety inspections as directed by the safety officer or other designated person.
 - 3.3.9 Assist in the new hire orientation of all new employees before permitting them to enter the job site.
 - 3.3.10 Assist the safety officer in the investigation of all accidents.
 - 3.3.11 Serve on the company Employee Safety Committee.

- 3.3.12 Maintain required safety documentation (training, incident reports, equipment records, inspection/audit information, etc.).
- 3.4 Safety Officer (as needed or required):
 - 3.4.1 Develop programs as necessary to comply with federal, state, and local employee safety and health regulations.
 - 3.4.2 Coordinate provision of employee and management safety and health training.
 - 3.4.3 Maintain all required documentation (training, incident reports, equipment records, inspection/audit information, etc.).
 - 3.4.4 Participate in the Employee Safety and Health Committee.
 - 3.4.5 Prepare safety and health management status reports including Workers' Compensation loss summary, compliance summary, and trend analysis of audit results, accident and incident causes, safety alerts, and other reported safety concerns.
- 3.5 Employees:
 - 3.5.1 Follow all safety and job rules and procedures.
 - 3.5.2 Use only tools, equipment, and materials for which training and authorization have been given.
 - 3.5.3 Report all incidents and accidents as required.
 - 3.5.4 Report all observed unsafe conditions and behaviors.
 - 3.5.5 Participate in all employee safety and health training programs.

4. Procedure.

- 4.1 General construction safety work rules:
 - 4.1.1 Employees are to follow all task and job site policies, and procedures.
 - 4.1.2 Employees are to refrain from running, horseplay, practical jokes, and other activities, which could lead to the injury of the employee or others.
 - 4.1.3 Employees are to report to work in appropriate attire and condition to ensure constant awareness of surroundings and activities.
 - 4.1.4 Employees under the influence of alcohol or drugs will be removed from the work site immediately.
 - 4.1.5 Employees will only use, repair, or adjust tools and machinery if trained and authorized by supervisory personnel.

- 4.1.6 Employees will maintain good housekeeping in all work areas and follow housekeeping schedules as required by job procedures and department policies.
- 4.1.7 Employees must report all unsafe conditions or behaviors to their supervisor immediately.
- 4.1.8 Employees must report all injuries to their supervisor immediately.
- 4.1.9 Employees are expected to assist in keeping the work site as free of debris as possible.
- 4.1.10 Employees are not allowed on the work site with firearms, explosives or unlawful weapons. Employees with such possessions on their person or property will be removed from the job site immediately.
- 4.1.11 Loose or ragged clothing shall not be worn while working around machinery.
- 4.1.12 Rings and/or other jewelry should be removed while working around machinery.
- 4.1.13 Know the location of emergency exits, first aid kits, fire extinguishers, fire alarms.
- 4.1.14 Do not use compressed air for dusting or cleaning clothing.
- 4.1.15 Attend and participate in the weekly "tool box" safety meetings.
- 4.1.16 Wear only the approved personal protective equipment.
- 4.1.17 Fall protection is required when exposed to falls greater than 6 feet.
- 4.1.18 Never ride mobile scaffolding.
- 4.1.19 All scaffolding must be properly constructed, with toe-boards, mid-rails, and handrails over 10 feet.
- 4.1.20 All scaffolding must be inspected daily by the designated "competent person".
- 4.1.21 All ladders shall be inspected before use.
- 4.1.22 Ladders are only to be used within appropriate compliance guidelines.
- 4.1.23 Do not operate any machine unless trained and authorized to do so.
- 4.1.24 All gas cylinders shall be chained in an upright position.
- 4.1.25 Never remove a safety guard from machinery or equipment.
- 4.2 Specific jobsite construction industry safety work rules are located in the section labeled "General Safety" in this manual.

5. Safety Information.

- 5.1 Jobsite Safety Audits
 - 5.1.1 Jobsite hazard assessment:
 - 5.1.1.1 The Safety Officer or Project Manager conducts a General Hazard Assessment during the planning phase of a new project and updates the assessment as the job progresses. The completed assessment form is maintained in the main office, or where similar records are maintained.
 - 5.1.2 Jobsite safety audits:
 - 5.1.2.1 The Safety Officer or Job Site Supervisor will conduct formal jobsite safety audits on an annual basis for long term projects or on an as needed basis for shorter term projects to evaluate the overall safety of the jobsite.
 - 5.1.2.2 Findings will be reviewed with the employees or the Subcontractor contact.
 - 5.1.2.3 The Safety Officer or Project Manager will use recently completed audit reports during subsequent audits to ensure appropriate corrective actions are implemented as necessary.
 - 5.1.3 Daily walk through safety audits:
 - 5.1.3.1 The Safety Officer or Job Site Supervisor will walk through assigned areas on an as needed basis to identify any unsafe condition or behavior.
 - 5.1.3.2 Hazards are to be corrected immediately.
 - 5.1.3.3 If a hazard cannot be corrected immediately, a Hazard Alert Form will be completed and submitted to all affected subcontractors. Those subcontractors will inform employees of the hazards and appropriate precautionary measures. In such cases, the Job Site Supervisor must recheck the area in a reasonable time frame to ensure the hazard is appropriately corrected.
 - 5.1.3.4 Work affected by any hazard that could cause serious injury must be halted until the hazard is corrected.
- 5.2 Accident and Incident Investigation
 - 5.2.1 Reporting incidents is critical to the effectiveness of any injury and illness prevention program. The purposes of incident reporting are as follows:
 - 5.2.1.1 Provide documentation for claims

- 5.2.1.2 Provide information to focus employee safety and health management efforts
- 5.2.1.3 Provide historical data to measure progress
- 5.2.1.4 Allow for continuous improvement
- 5.3 Reporting Procedures
 - 5.3.1 Employees must report all incidents and accidents to the Job Site Supervisor (or the Safety Officer or Project Manager) that will complete the following forms. Portions of the report form may be completed by the employee or a Supervisor designee.
 - 5.3.2 The employee's Supervisor must complete all portions relating to the accident/incident investigation and must also ensure the full completion of all portions.
 - 5.3.3 The Safety Officer or Project Manager must review and sign the completed form.
 - 5.3.4 Copies of the report must be forwarded to the following people, as needed or required:
 - 5.3.4.1 Safety Officer
 - 5.3.4.2 Claims Coordinator
 - 5.3.4.3 Internal Human Resources Representative
- 5.4 Accident Investigation or Employee Incident Report flow:
 - 5.4.1 The employee reports the incident to his/her Supervisor as soon as he/she is aware of the event.
 - 5.4.2 The Safety Officer or Job Site Supervisor conducts an investigation and completes the Incident Report as soon as possible and forwards the report to the Project Manager or management.
 - 5.4.3 The Manager reviews the report to ensure the completion of a thorough investigation and sends copies to the appropriate personnel.
 - 5.4.4 Once the reports are completed and forwarded to the appropriate personnel, the following personnel will be undertake the listed activities to reduce the risk of recurrence:
 - 5.4.4.1 Safety Officer:
 - 5.4.4.1.1 Regularly reviews Incident Reports to identify trends.

- 5.4.4.1.2 Compiles an Incident Trend Summary Report which is presented to the Senior Manger or to the Employee Safety and Health Committee who initiates organization-wide corrective actions to address the identified trends.
- 5.4.4.1.3 Works with the Project Manager and/or Job Site Supervisor to ensure the correction of identified hazards.
- 5.4.4.2 Claims Officer:
 - 5.4.4.2.1 Uses the Incident Reports to complete the necessary Worker's Compensation forms and to initiate claims management activities.
- 5.4.4.3 Project Manager:
 - 5.4.4.3.1 Follows up with the Supervisor and employees to ensure the correction of identified incident/accident causes.
 - 5.4.4.3.2 Shares relevant information with the Supervisor in other areas of their departments to ensure similar hazardous situations are addressed.
 - 5.4.4.3.3 Ensures the provision of sufficient resources to make the necessary corrections and changes. Such resources may include equipment, materials, money, time, and support for policy changes.
- 5.4.4.4 Senior Manager:
 - 5.4.4.1 Reviews Incident Reports as needed to determine the types of incidents occurring within the organization and the identified hazards in order to make appropriate decisions regarding safety and health management efforts.
 - 5.4.4.2 Reviews the Incident Report Trend Summary Report provided by the Safety Officer to identify overall facility needs and to provide the leadership necessary to ensure workplace safety and health.
- 5.4.4.5 Employee Safety and Health Committee (as needed or required):
 - 5.4.4.5.1 The Committee will be composed of both management and non-management personnel.
 - 5.4.4.5.2 The Safety Officer is responsible for maintaining a list of current Committee members.

Record	Responsible Person	Location	Duration
Employee Safety Orientation	Safety Officer or other designated person	Main Office Employee File or with similar records	Until superseded
Employee Safety Training Records	Safety Officer or other designated person	Main Office Employee File or with similar records	Until superseded
Inspection Records and Audit Reports (w/corrective actions noted)	Safety Officer or other designated person	Main Office or with similar records	Until superseded or all action items are closed (whichever is longer)
Accident Reports (w/ corrective actions noted)	Safety Officer or other designated person	Main Office or with similar records	5 years
OSHA 300 Log and 301 Forms	Safety Officer or other designated person	Main Office or with similar records	5 years

Human Resources or other

designated person

5.5 Recordkeeping. At a minimum the company will maintain the following records:

6. Training and Information.

Employee and Subcontractor

Safety/OSHA Compliance

Disciplinary Records regarding

- 6.1 New employees:
 - 6.1.1 All new employees will receive an orientation provided by the Safety Officer or Job Site Supervisor prior to their exposure to work place hazards.

Human

records

Resources Office

or with similar

Until Obsolete

- 6.1.2 The new employee orientation will cover the following items:
 - 6.1.2.1 Overview of the Safety Program
 - 6.1.2.2 Review of employee and management responsibilities
 - 6.1.2.3 Hazard reporting procedures
 - 6.1.2.4 Incident and accident reporting procedures
 - 6.1.2.5 Employee Safety Committee function and members
 - 6.1.2.6 General work rules
 - 6.1.2.7 Department work rules
 - 6.1.2.8 Method of access to first aid treatment
 - 6.1.2.9 Acceptable clothing

- 6.1.2.10 Personal Protective Equipment required on the job
- 6.1.2.11 Location of all safety equipment
- 6.1.2.12 Fall protection
- 6.1.2.13 Scaffolds
- 6.1.2.14 Materials and handling
- 6.1.2.15 Cranes and hoists
- 6.1.2.16 Tag lines
- 6.1.2.17 Barricades
- 6.1.2.18 Machine guarding, lock out/tag out
- 6.1.2.19 Confined space entry
- 6.1.2.20 Vehicle safety
- 6.1.2.21 Housekeeping
- 6.1.2.22 Job tasks hazards and methods of control
- 6.1.2.23 Federal and State OSHA required training
- 6.1.3 The initial orientation documentation will be maintained by the Safety Officer or Job Site Supervisor and stored in the main office or the employee file (or where similar training records are maintained).
- 6.2 Transfer employees:
 - 6.2.1 Employees transferring within the company will be trained in the items and exposures which previous training did not cover. The Safety Officer or Job Site Supervisor will provide this training prior to the employee's exposure to new hazards. Updated training will be documented on the employee's training record and stored in the main office or the employee file (or where similar training records are maintained).
- 6.3 Specific job/task training:
 - 6.3.1 Employees must be trained to perform specific tasks in the construction job site such as forklifts, scaffold erection and confined space entry.
 - 6.3.2 The Job Site Supervisor will identify which tasks require specific training and ensure this training is completed prior to permitting the employee to perform that task.

- 6.3.3 Training will be provided by the Safety Officer or Job Site Supervisor and documented on the employee's training record and stored in the main office or the employee file (or where similar training records are maintained).
- 6.4 Ongoing training:
 - 6.4.1 Every construction job is unique. The Safety Officer or Job Site Supervisor must assess each job to identify its potential health and safety risks. Appropriate control methods will be communicated via:
 - 6.4.1.1 New job orientation
 - 6.4.1.2 Daily morning tailgate meetings
 - 6.4.1.3 Weekly site updates/training
 - 6.4.1.4 Scheduled skills training programs

7. Definitions.

- Incident An incident is an unplanned event resulting in a minor injury (e.g. a small bruise) or minor property damage (e.g. a broken box with lightly damaged, mostly usable contents) or has the potential to result in injury or property damage (a near miss). Incidents do not usually result in a claim.
- Accident An accident is an unplanned event resulting in an injury requiring treatment (in-house first aid or outside medical attention) or more substantial property damage. Accidents usually result in a claim.

TRAINING ATTENDANCE ROSTER GENERAL CONSTRUCTION SAFETY				
Training Includes Overviews Of: • Emergency Action and First Aid • Hazard Communication • Electrical Hazards • Chemical Storage and Flammable Liquids • Flammable Liquids • PPE • Forklifts and Machinery • Tools and Equipment Guarding • Ladders • Confined Space		 Welding Lifting Temperature Extremes Lighting and Sanitation Barricades and Signs Public Protection Scaffolds Fall Protection Excavation Concrete or Steel Erection Power Lines Commercial Diving 		
<u>INSTRUCTOR:</u>	<u>DATE:</u>		<u>LOCATION</u> :	
NAME (Please Print) FIRST - MI - LAST		SIC	GNATURE	
By signing below, I attest that I have by the safety information, procedu	attended the safet ires, rules, regulation instructed	y training fo ons and/or d d.	r the topic indicated, and will abide company policy as presented and	

FIRST AID KIT SUPPLY REQUIREMENTS

Based on the number of employees the following items should be available in First Aid Kits located at the job site. (Kits are required for California Construction sites)

First Aid Kit <u>Required</u> Supplies:	1-5 Employees	6-15 Employees	16-200 Employees	Over 200 Employees
Adhesive dressings	Х	Х	Х	Х
Adhesive tape rolls, 1-inch wide	Х	Х	Х	Х
Eye dressing packet	Х	Х	Х	Х
1-inch gauze bandage roll or compress	X	Х	Х	Х
2-inch gauze bandage roll or compress	X	X	X	X
4-inch gauze bandage roll or compress	X	X	X	X
2-inch square sterile gauze pads	X	Х	Х	Х
4-inch square sterile gauze pads	Х	Х	Х	Х
Sterile surgical pads suitable for pressure dressings			X	X
Triangular bandages	X	X	X	X
Safety pins	X	X	X	X
Tweezers and scissors	Х	Х	Х	Х
*Additional equipment to be readily available, but not necessarily in First Aid Kit:				
Cotton-tipped applicators			Х	Х
Forceps			Х	Х
Emesis basin			Х	Х
Flashlight			Х	Х
Magnifying glass			Х	Х
Portable oxygen and its related breathing equipment				X
Tongue depressors				X
Appropriate Record Forms	X	Х	Х	Х
Up-to-date First Aid Textbook, Manual, or Equivalent	X	X	X	X

PROGRAM OVERVIEW

ELECTRICAL (COMPREHENSIVE) SAFETY PROGRAM

REGULATORY STANDARD: OSHA - 29 CFR 1910.331 - 335

OSHA - 29 CFR 1926.302, 1926.416-417

INTRODUCTION

This program is designed to assist the company to ensure that work practices performed on or near electrical equipment and energy sources are evaluated to determine if proper safety precautions are implemented. This program applies to all employees and contractors of the company who are exposed to live electrical energy at levels of >50V and less than 240V that cannot be locked out and de-energized. It outlines employee training, work practices, equipment use and details the safeguards for personal protection.

TRAINING

- Employees exposed to hazards >50V must be trained and understand the magnitude of the hazard and the protective measures and controls used
- Employees exposed to higher voltages (>110V) must be qualified and have appropriate licenses or documented training.
- Employees exposed to high voltage (>240V) must be licensed electricians or otherwise specifically qualified, and use arc-flash protective gear. (Note that this program does not review the requirements for this level of exposure).
- · Welders must be trained in electrical safety, regardless of the voltage encountered
- Specialized equipment (high voltage, CDT, etc.) may require additional training or restrictions put into place to limit exposures

ACTIVITIES

- Review hazards and determine level of exposures
- Provide testing supplies and safety equipment
- Run electrical systems to reduce the use of extension cords to truly temporary use
- Provide warning and alerting devices to protect employees from contact with energy hazards
- · Write and communicate policies and procedures

FORMS

- Electrical Written Program
- Training Attendance Roster

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ELECTRICAL (COMPREHENSIVE) SAFETY PROGRAM

- 1. **Purpose.** This program outlines the processes to protect employees in their workplaces from hazards associated with live electrical energy. These processes may include, but are not limited to the following:
 - 1.1. Design of electrical systems, electrical utilization equipment, and installations Safety related work practices
 - 1.2. Safety related maintenance requirements
 - 1.3. Safety requirements for special equipment and processes
 - 1.4. Additionally, any contractors that will perform electrical work at the company will be required to have an Electrical Safety Program in place.
- **2.** Scope. This program applies to all employees and contractors at the company who are exposed to live electrical energy at levels of >50V.

3. Responsibilities

- 3.1 Management
 - 3.1.1 Ensure a written program is in place appropriate to the hazards. This program considers voltage, energy level, circuit conditions, and the identification of any electrical safety controls
 - 3.1.2 Ensure any modifications to existing equipment meet Electrical Safety Standards
 - 3.1.3 Ensure installations of new equipment are assessed or inspected to assure they meet the electrical safety standard requirements.
 - 3.1.4 Review the written program at least annually to assure it remains accurate and applicable.
 - 3.1.5 Assure employees who work on live electrical equipment or components, or who are exposed to electrical hazards are "qualified" under the requirements of the standard and appropriately trained, based on the risks presented.
 - 3.1.6 Ensure all contractors who work with electrical parts, components or hazards have a written Electrical Safety Program in place, prior to their beginning work.
 - 3.1.7 Provide Electrical Personal Protective Equipment to the employees, as needed.
- 3.2 Engineering and Design or Purchasing

- 3.2.1 Ensure any modifications to existing equipment meet Electrical Safety Standards
- 3.2.2 Ensure installations of new equipment are assessed or inspected to assure they meet the electrical safety standard requirements.
- 3.2.3 Ensure all contractors who work with electrical parts, components or hazards have a written Electrical Safety Program in place, prior to their beginning work.

3.3 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 There may be conditions where voltages less than 50 volts may require an Electrical Safety Program. These would include, but are not limited to, conditions where electrical burns, explosion due to electric arcs, or low voltage, high current systems require safe work practices.
- 4.2 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.
 - 4.2.1 Live parts (>50V) must be de-energized (Lockout/Tagout) before employees work on them, unless it is demonstrated that additional or increased hazards are introduced, or where de-energizing is infeasible due to design or operational limitations. In such cases a specific and detailed procedure will be in writing and followed for the energy control of that operation. The detailed procedure must include:
 - Statement of intention
 - Specific steps to shut down, isolate, block and secure machine or equipment
 - Procedures for placement, removal and transfer of devices
 - Specific responsibilities for devices
 - Requirements for equipment testing and verify effectiveness of measures
 - 4.2.2 In all cases overhead power lines must be de-energized if there is a possibility of contact with them by any part of the body, tool or equipment that could create a conduit of energy through the person or equipment.
 - If "unqualified" persons must work underneath or near energized lines, they
 must be located far enough away from the line so that any tool or equipment
 used cannot contact the line. At a minimum, the distances must be 10 feet
 for 50kV or less and an additional 4 inches for every additional 10kV of
 power over 50kV. Minimum approach distance is 20 feet, if the power level
 in the line is unknown.

 "Qualified" persons may not approach or take un-insulated conductive objects (including lift equipment) any closer to overhead lines than the following:

Table 2		
Voltage Range	Minimum Distance	
300V and less	Contact should be avoided	
300-750V	1 foot	
750-2kV	1 foot 6 inches	
2kV-15kV	2 feet	
15kV-37kV	3 feet	
37kV-87.5kV	3 feet 6 inches	
87.5kV-121kV	4 feet	
121kV-140kV	4 feet 6 inches	

- If the employees are within approach distances, they must still be insulated by protective equipment (i.e. arc flash gear) or equivalent protective materials.
- Elevated equipment (or equipment capable of being elevated) must maintain a clearance of at least 10 feet from overhead lines. Vehicles in transit with their structures lowered to their lowest level may reduce the clearance to 4 feet (plus 4 inches for every additional 10kV over 50kV). Insulated barriers, if used, must protect from the voltage that may be encountered. Aerial lifts used by "qualified" persons for work on overhead lines may have clearances reduced to the distances in Table 2 (above).
- Employees on the ground may not have contact with such equipment or any of its attachments unless they are insulated or the approach distances of the equipment are limited to those outlined in the table above.
- Where equipment is intentionally grounded because of potential contact, areas must be barricaded for a minimum 10 ft. radius.
- 4.2.3 Illumination and light must be provided to enable the employees to work safely. Blind reaching into a part, panel, equipment or circuitry system is prohibited.
- 4.2.4 Confined-space electrical work must utilize shields, barriers or insulating materials to avoid inadvertent contact with live energy sources and parts. Doors, panels, etc. must be secured.
- 4.2.5 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.
- 4.2.6 Jewelry and similar clothing items (e.g. scarves) must be covered or removed, if contact with energized parts is possible.

- 4.2.7 Housekeeping duties should not be performed near live parts without additional precautions put into place. De-energizing should take place to prevent inadvertent contact with energized parts by "un-qualified" people.
- 4.2.8 Interlocks may not be defeated unless it is done by a "qualified" person.

5 Safety Information

- 5.1 General
 - 5.1.1 <u>Qualified Employees</u> Only "Qualified" individuals are allowed to work on or near energized equipment.
 - 5.1.2 <u>Policies or Procedures</u> Written electrical policies or procedures are established to ensure that electrical products, wiring, and devices are designed, installed, maintained, and utilized safely. Safe work practices and procedures are written and followed for regularly conducted tasks related to electrical exposures.
 - 5.1.3 <u>Level of Exposure</u> Hazard/Risk analyses are performed prior to any task. The work area is assessed to determine the level of exposure, requirements of the task and the corresponding risk to employees from any exposed energized parts or equipment.
 - 5.1.4 <u>Non-routine Tasks</u> Perform non-routine or emergency work only under the direction of qualified personnel, or after a thorough hazard/risk analysis (such as Job Hazard Analysis) of existing conditions. Write procedures, as required. Utilize Lock-Out/Tag-Out (LOTO) procedures, as required.
 - 5.1.5 <u>Medical and First aid</u> First aid kits must be maintained. When doing field work at least two people with 1st aid and CPR must be available, if more than 4 minute response all employees must be trained.
- 5.2 Safety Related Work Practices
 - 5.2.1 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:
 - · Do not leave exposed electrical hazards unattended
 - Replace covers or protect energized components from inadvertent contact
 - 5.2.2 Utilize proper insulation and/or protective equipment and proper tools corresponding to the level of exposure.
 - 5.2.3 Safety related work practices must be implemented for both qualified and nonqualified persons working with or near energized parts, materials, equipment or sources. This includes premises wiring, wiring from a connection to a supply, other types of wiring and installation of optical fiber cable when cables are run in the same conduit, raceway (or equivalent system) with any live electrical wiring.

- 5.2.4 Power generation, transmission and distribution work performed by qualified persons are exempted from this section. Additionally, work in vehicles (ships, watercraft, railways, aircraft and RVs) when such work is for signaling or communications equipment is also exempt.
- 5.2.5 Ladders must be secured to prevent them from being dislodged when live energy at any voltage. Where unqualified persons can access, ladders must be kept minimum of 10 feet away from live energized lines at 50KV or less, (at higher V add 4 inches for every 10KV).
- 5.2.6 Toolbox talks, job briefings, and contractor communication must be provided each day, covering:
 - Routine work Hazards, procedures, precautions, controls, PPE
 - Complicated work hazards, recognition of conditions
 - Work rules must be communicated and activities discussed to ensure employee and contractor safety is not compromised.
- 5.3 Use of Equipment
 - 5.3.1 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 or impacted.
 - 5.3.2 Damaged equipment must be repaired or replaced prior to use. Repairs may require testing to assure electrical continuity and safety.
 - 5.3.3 Flexible cords for equipment requiring grounding must contain a grounding connector. The plugs may not be altered or changed to allow insertion into a non-grounded receptacle.
 - 5.3.4 Highly conductive environments (wet or damp locations or hazardous atmospheres) must use only equipment approved for that environment (specifically GFCI or equivalent). 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.
 - 5.3.5 Locking connectors must be secured after connection, where required.
 - 5.3.6 Power and Lighting Circuits must use the switches, breakers or disconnects to open, reverse or close circuits when live energy is present. Cable connectors not specifically designed for this purpose may not be used, unless it is an emergency. After de-energizing, circuits may not be manually re-energized until it has been determined that it can be accomplished safely (overloads rather than fault conditions are exempt from this requirement). Over-current protection may *not* be modified.

- 5.3.7 Test equipment may be used only by a "qualified" person. Visual inspection of the test equipment must take place before each use. If defects or damage is found, it must be removed from service until repaired or replaced. Test equipment (and their accessories) must be designed and rated for the level of energy they will be testing for.
- 5.3.8 Where flammable or ignitable vapors, gases or dusts are present at any time electrical equipment capable of igniting these materials may not be used.
- 5.4 Safeguards for Personal Protection:
 - 5.4.1 PPE (Personal Protective Equipment) appropriate to the level of electrical hazard that may be encountered must be provided and used. PPE must be maintained in a safe and reliable condition. It must be inspected or tested periodically. If the insulating capability of protective equipment could be damaged during use the insulating material must be protected (i.e. outer leather gloves over insulated inner gloves).
 - 5.4.2 Non-conductive head protection must be provided if head injury is possible from contact with electrical circuits or conductors.
 - 5.4.3 Eye or face protection is required when arcs or flashes may occur or if electrical explosion could create flying objects.
 - 5.4.4 Fall protection is required for qualified persons at 4 feet for live electrical work, or for any pole or tower work. Positioning straps must pass electrical tests and flammability tests, and must be limited to 2 feet fall distance. Lanyard strength must be adjusted upward if employee weight is >310 lbs.
- 5.5 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.
 - 5.5.1 Fuse removal tools must be rated for the circuit voltage
 - 5.5.2 Ropes and hand-lines must be non-conductive
 - 5.5.3 Protective shields will be put in place or used to prevent contact with live parts or energized materials. "Non-qualified" persons must be suitably protected during service or repair from contact with live electrical energy or energy hazards.
 - 5.5.4 Hydraulic and pneumatic tools must be rated for electrical if potential to contact live circuitry, and protect against loss of insulating value (as hydraulics can create a vacuum in the line).
 - 5.5.5 Live line tools must be wiped down and inspected each day before use.
 - 5.5.6 Live line tools must be removed from service every 2 years and either replaced or tested to ensure integrity.

- 5.6 Generators may only supply equipment located on the generated or directly through receptacles mounted on the generator. Generators mounted on vehicles must be bonded to vehicle frame.
- 5.7 Warning and alerting devices, such as signs, tags symbols, barricades or attendants will be used to protect employees from contact with energy hazards. Barricades must be used in conjunction with signs when access to a work area must be restricted. Where such barricades do not provide sufficient protection, attendants will be posted.

6 Training and Information

- 6.1 All employees with exposures will receive general electrical safety awareness training
- 6.2 "Qualified" individuals will have appropriate licenses or documented training
- 6.3 Employees exposed to 50 volts or more to ground (and their first-line supervisors) require additional training that is commensurate with the risk encountered
- 6.4 Welders must be trained, regardless of the voltage they may encounter
- 6.5 Training must be classroom or on-the-job and the degree of training must be commensurate with the risk to the employee. Training includes:
 - 6.5.1 The content of the portions of the electrical safety standard that applies to the work
 - 6.5.2 Safety related work practice required for the respective job or task
- 6.6 Additional requirements for unqualified persons that are necessary for their safety, including methods to recognize energized from non-energized parts, how to determine nominal voltage of exposed live parts and the clearance distances.

7. Definitions.

- *© Conductor* A wire or other conduit that conducts electricity
- *De-energized -* Free from any electrical connection to an energy source
- **Ø** Designs Electrical Systems and Equipment Engineers or other technical professionals responsible for implementing design safety standards for electrical equipment.
- Ø 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.

- Ø Over-Current Protection A device that protects equipment or conductors from current in excess of the rating for the equipment or conductors.
- **Ø** *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.
- Ø 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.

ELECTRICAL SAFETY WRITTEN PROGRAM (_

This procedure identifies the Electrical Safety Program that is in place covering all electrical work performed by the company. This procedure provides overall program guidance and should be used in conjunction with all procedures and practices employed by the company to help insure electrical equipment and electrical work is accomplished safely.

Philosophy: Achieve and reinforce a zero incident philosophy through prudent equipment design and installations, and safe electrical work practices.

All employees within The company shall follow the electrical safety procedures and other directives set forth by the company.

It is the company's responsibility to insure that only *qualified* individuals work on or near energized electrical equipment. It shall be further required that *non-qualified* individuals who work on electrical equipment be trained and understand the limits placed on them while working on this equipment. It is further required that all *non-qualified* individuals are protected from inadvertent contact with energized components.

- **Personal Responsibility** Each person should be responsible for his or her own safety and for the safety of others. Each person is expected to correct or report unsafe conditions or acts that are observed. Each person is expected to know, understand, and use applicable safety procedures and work instructions as tools to guide all tasks. Each person shall use the approved tools and personal protective equipment as required for the job.
- Qualified Person Each qualified person shall demonstrate, through training or education, the required technical skills to perform their job responsibilities safely. The qualified person shall be knowledgeable in the use of electrical safe work practices, and the proper selection and use of Personal Protective Equipment (PPE).
- **Supervisory Responsibility** Each Supervisor must set an example by demonstrating the proper attitude and behavior toward safety. The Supervisor's conduct is reflected in the conduct of those he or she supervises. Each Supervisor should empower the people under his or her direction to be proactive in continuously improving their own safety and the safety of others. Each Supervisor shall insure that the people under his or her direction have the necessary knowledge and skills to complete assigned tasks safely.
- **Management Responsibility** Personal Protective Equipment and other associated equipment and tools are provided to employees working on electrical equipment. Each manager shall provide the required resources to insure that employees and Supervisors receive the required training as directed by prudent electrical safety practices. Each manager shall insure that only recommended tools, instruments and Personal Protective Equipment be used when working on electrical equipment.
 - Managers should designate a technically competent qualified person to advise them in the development, implementation and maintenance of electrical safe work practices.

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Program Principles. The company Electrical Safety Program shall include the following principles, but are not limited to:

- Inspection/evaluation of electrical equipment
- Maintain the electrical equipment's insulation and enclosure integrity
- Plan every job and document first time procedures
- Deenergize, if possible
- Anticipate unexpected events
- Identify and minimize the hazard
- Protect the employee from shock, burn, and blast and other hazards that are due to the working environment.
- Use the right tools for the job.
- Assess peoples abilities
- Auditing these principles

Program Controls. The company has established the following controls to insure electrical safety. These controls may include, but are not limited to:

- Shut Down Energy Source (Deenergized). No work shall be conducted where exposures to hazards associated with electrical energy exists until an attempt is first made to shut down the source of energy.
- Parts Are Considered Energized Until Proven Otherwise. Every electrical conductor or circuit part is considered energized until proven otherwise.
- No Barehanded Contact. No bare-hand contact is to be made with exposed energized electrical conductors or circuit parts.
- **Deenergizing Is a Dangerous/Hazardous Task.** De-energizing an electrical conductor or circuit part and making it safe to work on, can itself be a potentially hazardous task.
- **Development of Procedures.** Procedures shall be developed relevant to the equipment, hazards and operations. This will include training so employees can apply them to accomplish each task.
 - Use procedures as "tools" to identify the hazards and develop plans to eliminate/control the hazards.
- Qualified Employees. Employees will be qualified for the task to which they are assigned.
- Train employees to qualify them for working in an environment influenced by the presence of electrical energy.
- **Hazard/Risk Analysis.** A hazard/risk analysis will be performed for each task involving any approach to energized conductors and/or circuit paths.
- **Overall Safety Environment.** The overall safety environment will be considered when working on electrical equipment (e.g., clearances, illumination, working on elevated areas, etc.). Identify and use precautions appropriate to the working environment.
- **Safety Discussions.** Affected groups will hold periodic safety discussions to reinforce safety procedures and heighten awareness. Annually a safety stand down may be held to further emphasis issues, training and incidents.
- Job Plan; Hazards and Procedures. Each non routine job or one that does not have an established procedure will require a *Job Plan or Job Hazard Analysis*. Each Job Plan will include a discussion of existing hazards and the procedures appropriate for the tasks involved in the job.

Training.

- All qualified persons in the company are expected to meet the training requirements that include information and experience relating to electrical hazards and electrical safe work practices.
- Employees will be provided with electrical safety awareness training, as appropriate and electricians will have licenses and/or appropriate training.

Policies.

- **Standards Policy.** Equipment shall be properly labeled and identified. As conditions change or revisions are made, equipment identification must be updated.
- As-Built Documentation Policy (Change Management). Drawings used in planning electrical work must reflect the current condition of equipment and installations, single-line diagrams, process and instrument (P&I) diagrams, schematics, and underground drawings must all be up-to-date so that proper planning can take place. In addition, up-to-date drawings help to identify potential hazards. Inaccurate drawings can compromise the safe execution of an electrical task, no matter how well planned the task might be. These drawings shall be maintained in an up-to-date condition. As-built changes shall be recorded, and file copies shall be changed appropriately.

• Evaluation, Installation and Use of Equipment.

- Approval. The conductors and equipment required shall be acceptable only if approved and listed by Nationally Recognized Testing Laboratory
- Hazards. Electrical equipment shall:
 - Be free from recognized hazards that are likely to cause serious injury to employees.
 - Be suitable for installation; conform to codes, listings or labeling for its intended purpose.
 - Be installed in accordance with any manufacturer's instructions.
 - Have identification of any disconnecting means and circuits
 - Have required working space around the equipment
 - Have required illumination of the work space
 - Provide for the guarding of live parts
 - Be in compliance with other consensus standards (ANSI, NFPA, IEC)
- Installation of large equipment or processes shall be approved as appropriate by a recognized inspection process, and may include certification from municipal or public inspectors.
- Abandoned Lines, Wires, or Cables. Electrical lines, wires, and cables that are removed from service or not connected should be removed. If removal is not feasible they must be deenergized, taped and then tagged, to indicate the location of the other end. Underground wiring abandoned in place must be maintained in drawings for reference and so indicated on the drawing. Temporary wiring installed to provide power during construction must be removed when no longer required.
- Excavation Policy. A thorough investigation must be conducted prior to beginning any excavation work. The investigation includes examining drawings, receiving information from utility or municipal resources, and inspecting the area with devices that can detect underground obstacles. The utility and service companies **must** authorize or provide information on underground services prior to the beginning of work.

TRAINING ATTENDANCE ROSTER ELECTRICAL SAFETY

Electrical Safety Training Includes:

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INSTRUCTOR:	<u>DATE:</u>	LOCATION:
NAME (Please Print) FIRST - MI - LAST	SIGNATURI	E
By signing below. Lattest that I have attended the safety training for the topic indicated, and will abid		

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.

instructed.		

Name of Interpreter, if utilized: _

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.)
- 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. For more information reference the attached documentation on Life Safety.
- 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.

- 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.

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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.

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- 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.
- Ø 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.

EMERGENCY ACTION PLAN								
COMPANY NAME: DATE:								
SITE ADDRESS:			PLAN C	OMPLETED BY:				
Emergency Escape Procedu	res and Escape Route A	ssignments: (opt	ional - attach evacuation	n route map)				
Procedures to be followed by	y employees who remain	to operate critica	al operations before they	/ evacuate:				
Procedures to account for er	nployees after evacuatio	n is complete (e.g	g. crew leader counts cr	ew – reports status to	emergency services):			
Employee rescue or medical	duties:							
Methods to report fires and o	other emergencies:							
Person(s) to contact for ques	stions regarding site Eme	ergency Action Pl	an or employee duties u	Inder Plan (name and	phone number):			
Emergency Type	Emergency Type Notification Method (Automatic, Pull Box, Phone) Site Contact Emergency Services Number Designated Meeting/Evacuation location(s)							
FIRE				For Fire:				
TORNADO								
	ARTHQUAKE FOR TOMADO:							
SPILL/RELEASE	SPILL/RELEASE For Farthquake:							
MEDICAL EMERGENCY								

FIRE DRILL OR EVACUATION ASSESSMENT						
Evacuation Ev Start time: E	vacuation nd time:	Total tim evacuation	e for process:			
Evacuation Routes Marked:	🛛 Yes 🖾 No	YesNoExit Signs Visible or Evacuation Routes Posted:Image: Comparison of the second seco		Yes 🛛 No		
Was the building completely evacu	🛛 Yes	🗖 No				
Was the evacuation signal heard in	n every area of the b	uilding?		🗆 Yes	🗖 No	
Did all employees meet at their de	signated relocation (point?		🛛 Yes	🗖 No	
Have procedures for the handicap	ped been addressed	?		🛛 Yes	🗖 No	
Did all equipment (stairwell doors, alarms, etc.) function properly?						
Problem or Issue Noted And Corrective Action To Be Taken:						
	<u> </u>					
Name of Person Responsible for Corrective Action: Completed Date:						
Additional Comments/Requirements:						
Evaluator's Name: Signature:						

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)	SIGNATUR	Ξ
FIRST - MI - LAST		a haan haafii ah fala
By signing below, I attest that I have attended the safe	ety training for the topic indicat	ed, and will abide
by the salety mormation, procedures, rules, regulation	nons and/or company policy as	s presented and
	50.	

Name of Interpreter, if utilized: ____

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

Name of Interpreter, if utilized:

PROGRAM OVERVIEW

ERGONOMICS AND MUSCULOSKELETAL DISORDER MANAGEMENT SAFETY PROGRAM

REGULATORY STANDARD:

OSHA - 29 CFR 1910 General Duty Clause California CCR Chapter 7 Article 106

INTRODUCTION

Repetitive motions, use of force or pressure, or improper workstation set up are the primary causes of ergonomic disorders. This program allows for ergonomic evaluations for both office and manufacturing environments. Implementation of this program is required in California, when more than one person becomes symptomatic doing the same task at any workplace.

TRAINING

Recommended for workplaces with high ergonomic risk.

ACTIVITIES

- · Evaluate the need for an ergonomics program
- · Implement controls to minimize or eliminate repetitive or force trauma tasks.

FORMS

- Ergonomic Office/Computer Safety Checklist
- Ergonomic Work Area Screening and Analysis Tool
- Training Attendance Roster

Table of Contents

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

ERGONOMICS AND MUSCULOSKELETAL DISORDER MANAGEMENT SAFETY PROGRAM

- **1. Purpose.** This document provides a program to enable an organization to effectively manage musculoskeletal disorders (MSDS) or repetitive strain injuries (RSI).
- 2. Scope. This program applies to all facilities and operations at the company. This program is limited to work-related musculoskeletal disorders.

3. Responsibilities

- 3.1 Management. Management should review the following roles and responsibilities and assign them to appropriate existing or new positions as they deem appropriate. Additionally, they have the following responsibilities:
 - 3.1.1 Ultimate responsibility to ensure program requirements are met.
 - 3.1.2 Communicate the importance of the MSD management program.
 - 3.1.3 Complete any required training under State regulations (California).
 - 3.1.4 Develop and approve the goals and objectives of the company's ergonomics program and regularly review progress.
 - 3.1.5 Review organization procedures to ensure employee participation.
 - 3.1.6 Appoint one or more persons from within the company to function as a local ergonomics coordinator, as needed.
 - 3.1.7 Ensure adequate resources are available (i.e. personnel, time, equipment) to implement the program or any ergonomic initiatives undertaken.
 - 3.1.8 Ensure that personnel performing specific tasks relative to the ergonomics program or initiatives are competent based on their education, training and experience.
 - 3.1.9 Ensure, when feasible, controls to any identified ergonomic hazards are implemented.
 - 3.1.10 Ensure supervisors and employees are held accountable for reporting ergonomic incidents, as needed (required in California).

3.2 Employees

- 3.2.1 Participate in specific job and process hazard analysis and evaluations, as needed.
- 3.2.2 Report MSDS, or MSD signs or symptoms, when recognized.

- 3.3 Ergonomics Coordinator (may also be Safety Officer or other designated person). A minimum of one coordinator is recommended per company. The total number of persons assigned to this role shall be appropriate for the goals and deliverables of the program. The responsibilities for this role should be to:
 - 3.3.1 Function as centralized local resource of ergonomic services.
 - 3.3.2 Complete any required training.
 - 3.3.3 Maintain any documentation/records associated with the program.
 - 3.3.4 Provide required training to employees, as needed or appropriate.
 - 3.3.5 Monitor regulations related to musculoskeletal disorders and provide advocacy for the employees to the company.
 - 3.3.6 Establish site wide goals and monitor performance related to continuous improvement and program management to minimize compliance concerns, where required. This may be accomplished by the following:
 - 3.3.6.1 Conducting a screening or prioritization of tasks, equipment, workplaces and processes.
 - 3.3.6.2 Participating in reviews of new designs and modifications to existing processes, equipment, or tasks, including recommendations for controlling risk factors.
 - 3.3.6.3 Consulting on issues of concern by conducting technical analysis, providing recommendations to improve identified problems, etc.
 - 3.3.7 Regularly report to management on the status of program.
 - 3.3.8 Coordinate internal audits of program against the corporate program.
- 3.4 Medical Service Provider (as needed or required):
 - 3.4.1 Coordinate case management process.
 - 3.4.2 Provide health-care consultations and services.
- 3.5 Engineering Professional (as needed or required):
 - 3.5.1 Provide technical engineering consultation for ergonomic issues.
 - 3.5.2 Assist in the development and implementation of ergonomic improvements.

3

4. Procedure.

4.1 Elements of a Manufacturing-Based Program:

#	Program Element	Deliverable	Retention Period	
		Allocate Resources and Define Responsibilities	N/A	
		Written Program Document	UOS. Update annually.	
1	Management Systems	MSD Program Implementation Checklist.	UOS. 3-year review; Annual review for targeted operations.	
		Action Plan / Project Activity Log.	Regular update. 3-year retention.	
		Performance metric charts.	UOS. Update annually.	
2	Training	Training Records.	Regular update. 10-year retention.	
3	Proactive Job Screening and Assessment	Prioritized List of Jobs.	Regular update. 3-year retention.	
4	Proactive Review of New and Planned Modifications	MSD Job Screening and Analysis Records.		
5	Incident Investigation	Control Implementation	UOS. 5-year retention.	
6	Investigation of Employee Reports	Records.		
7	Management of MSD Cases	Medical case management.	N/A	

UOS - Until Obsolete or Superseded

4.2 Figure 1 below illustrates the essential components and functions of a manufacturing based MSD management program and how they work together.



- 4.3 Elements of an Office or Field-Service based Program
 - 4.3.1 Where computer/office work or field service work is the majority (75%) of the work environment, the organization may incorporate a modified program as outlined below. Field service work does not imply manufacturing maintenance departments.
 - 4.3.2 An office/field service based MSD management program should have the same components as shown in 5.1 with the following exceptions:

- 4.3.2.1 Proactive screening (see associated document Ergonomics Screening and Analysis Tools) is not required in field service work.
- 4.3.2.2 Proactive review of new and planned modifications (see associated document Ergonomics Screening and Analysis Tools) is not required in field service work.
- 4.3.3 Figure 2 below illustrates the essential components and functions of an office/field service based MSD management program and how they work together.



5. Safety Information

- 5.1 Recordkeeping
 - 5.1.1 Completion of any ergonomics training course should be entered into the training record of the employee. A training matrix is optional and may be used to track who has and has not taken recommended courses.
 - 5.1.2 A record of evaluated jobs and implemented controls should be maintained to assist in the evaluations of similar types of tasks or activities at the company.
- 5.2 Health Surveillance
 - 5.2.1 Prior to initial job assignment, or transfer of job responsibilities, employees who are to be assigned to positions involving known or suspected exposures to ergonomic hazards may receive a baseline health surveillance examination to establish where any changes in employee health status may occur. This surveillance is also designed to assist the company in determining where ergonomic controls may be required. Note: the use of medical screening tests or evaluations has not been validated as a predictive measure of risk for determining MSD related injuries and illnesses.
- 5.3 Ergonomic Screening and Surveys
 - 5.3.1 Checklist. A survey checklist may be used to assist in determining ergonomic risk factors such as: posture, materials handling, and upper extremity factors. The checklist will be tailored to the specific needs and conditions of the workplace.
 - 5.3.2 Ergonomic Risk Factors. Identification of ergonomic hazards is normally based on ergonomic risk factors such as, conditions of a job process, work station, or work methods that contribute to the risk of developing problems associated with ergonomic stressors. Not all of these risk factors will be present in every job containing ergonomic stressors, nor is the existence of one of these factors necessarily sufficient to cause a problem associated with CTD. Supervisors should ensure that known risk factors for specific employees, jobs or tasks are conveyed to the ergonomic assessment committee for improvement or correction.
 - 5.3.2.1 Personal Risk Factors include: Gender, Age, Anthropometry, Work method, Attitude, Training, Sight, Hearing, Smell, Physical strength, and Weight.
 - 5.3.2.2 Upper Extremities Risk Factors include: repetitive and/or prolonged activities, forceful exertions (usually with the hands), pinch grips, prolonged static postures, awkward postures (reaching and twisting), continued physical contact with work surfaces, excessive vibration from power tools and inappropriate or inadequate hand tools.

- 5.3.2.3 Back Disorder Risk Factors include: body mechanics (bending, lifting and twisting), prolonged sitting with poor posture, lack of adjustable equipment (chairs, footrests, etc.), poor grips on handles, slippery footing, frequency of movement, duration and pace, load stability, reach distances and work height.
- 5.3.2.4 Environmental Risk Factors include: floor surfaces and platforms, temperature extremes, lighting, noise and vibration.
- 5.3.2.5 Multiple Risk Factors. Jobs, operations, or work stations that have multiple risk factors have a higher probability of ergonomic risk. The combined effect of several risk factors is sometimes referred to as "multiple causation."
- 5.4 Work Station Analysis and Design
 - 5.4.1 Engineering Solutions. Engineering solutions, where feasible, are the preferred method of control for ergonomic hazards. The focus of the company ergonomics safety program is to make the job fit the person, not to make the person fit the job. This is accomplished whenever possible by redesigning the work station, work methods, or tool(s) to reduce the demands of the job.
 - 5.4.2 Work Station Design. Work stations when initially constructed or when redesigned will be adjustable in order to accommodate the person who actually works at a given work station, it is not adequate to design for the "average" or typical worker. Work stations 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 work space should be large enough to allow for the full range of required movements, especially where hand-held tools are used.
 - 5.4.3 Design of Work Methods. Traditional work method analysis considers static postures and repetition rates. This may 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.
 - 5.4.4 Repetitive motion. All efforts to reduce repetitive motion will be pursued. Examples of methods to reduce highly repetitive movements include:
 - 5.4.4.1 Increasing the number of workers performing a task.
 - 5.4.4.2 Lessening repetition by combining jobs with very short cycle times, thereby increasing cycle time. (Sometimes referred to as "job enlargement.").
 - 5.4.4.3 Using automation where appropriate.
 - 5.4.4.4 Designing or altering jobs to allow self-pacing or rest periods.

- 5.4.5 Force measurements. Force measurements, when taken, are noted as an estimated average effort, and a peak force. They are recorded as "light," "moderate," and "heavy." These measurements include the number of manipulations per cycle, per time frame and per work shift.
- 5.4.6 Vibration measurements. Tools can be checked for excessive vibration. (The NIOSH criteria document on vibration should be consulted).
- 5.4.7 Posture and lifting measurements. Hand, arm, and shoulder postures and movements can be assessed for levels of risk. Work stations having tasks requiring manual materials handling should have the maximum weight-lifting values calculated. (The NIOSH Work Practices Guide for Manual Lifting, 1981, should be used for basic calculations. Note that this guide does not address lifting that involves twisting or turning motions.)

6. Training and Information

6.1 MSD Training Courses

With this program is a training course recommendation form which can assist companies in determining the training recommendations and frequency of training for employees involved.

6.2 General Awareness Training

General awareness training for ergonomics is recommended for new employees on initial assignment, and refresher training is recommended for current employees at a minimum of once every three years. Training using a video tape with a question and answer time period is also appropriate as refresher training.

6.3 In-depth Ergonomics Training

In-depth training is recommended for all new ergonomic coordinators and others regularly involved in assessment. In-depth training is also recommended for all new and current engineers/designers whose work will impact the design of new, modified or existing processes or work places.

- 6.4 Job Specific Training
 - 6.4.1 Job specific training may be provided on a case by case basis when work methods or engineering controls have been implemented.
 - 6.4.2 Job Specific training is composed of the following topics:
 - 6.4.2.1 Instruction on the safe methods of using equipment
 - 6.4.2.2 Instruction of the identified work methods
 - 6.4.2.3 The reasons for job specific controls

6.4.3 This training should take place in separate training sessions to the general awareness training.

7. Definitions.

- Ø Ergonomics A multi-disciplinary science that studies human physical and psychological capabilities and limitations. This body of knowledge can be used to design or modify the workplace, equipment, and products to improve human performance and reduce the likelihood of injury and illness.
- Ergonomics Coordinator A designated person who is responsible for identifying and correcting ergonomic hazards in the workplace, including ergonomic professionals or other trained and qualified persons (such as health care providers, engineers, safety personnel or others who have received ergonomics training).
- Ergonomic Hazards Workplace conditions that pose a biomechanical stress to the worker. Such hazardous workplace conditions include, but are not limited to, faulty work station layout, improper work methods, improper tools, excessive tool vibration, and job design problems that include aspects of work flow, line speed, posture and force required, work/rest regimens, and repetition rate. They are also referred to as "stressors."
- *Ergonomic risk factors* Conditions of a job, process, or operation that contribute to the risk of developing CTDs, MSDS or RSIs.
- Cumulative trauma disorders (CTDs The term used in these guidelines for health disorders arising from repeated biomechanical stress due to ergonomic hazards. Other terms that have been used for such disorders include "repetitive motion injury," "occupational overuse syndrome," and "repetitive strain injury." CTDs are a class of musculoskeletal disorders involving damage to the tendons, tendon sheaths, synovial lubrication of the tendon sheaths, and the related bones, muscles, and nerves of the hands, wrists, elbows, shoulders, neck and back. The more frequently occurring occupationally induced disorders in this class include carpal Tunnel syndrome, epicondylitis (tennis elbow), tendonitis, tenosynovitis, synovitis, stenosing tenosynovitis of the finger, DeQuervain Disease, and low back pain.
- *Musculoskeletal Disorder (MSD)* A disorder of the muscles, nerves, tendons, ligaments, joints, cartilage, blood vessels, or spinal discs.
 - MSDS may include muscle strains and tears, ligament sprains, joint and tendon inflammation, tendonitis, epicondylitis, carpal tunnel syndrome, rotator cuff syndrome, DeQuervain's syndrome, trigger finger, tarsal tunnel syndrome, handarm vibration syndrome (HAVS), and low back pain, pinched nerves, sciatica, spinal disc degeneration, and herniated spinal disc.
 - Injuries arising from slips, trips, falls, motor vehicle accidents, or similar accidents are not considered MSDS for the purposes of this program.
- *Repetitive Strain Injury (RSI)* The terms MSD and RSI are analogous for the purposes of this program.

ERGONOMIC OFFICE/COMPUTER SAFETY CHECKLIST

Completed by: _____

Date: _____

PART I – OFFICE/COMPUTER OVERVIEW:				
WORKING POSTURES-The workstation is designed or arranged for doing computer tasks so it allows your:				
Head and neck to be upright or in-line with the torso (not bent down/back). If "no" refer to <u>Monitors</u> , <u>Chairs</u> and <u>Work Surfaces</u> in part 2.				
Head, neck, and trunk to face forward (not twisted). If "no" refer to <u>Monitors</u> or <u>Chairs</u> in part 2.	🗌 YES 🗌 NO			
Trunk to be perpendicular to floor (may lean back into backrest but not forward). If "no" refer to <u>Chairs</u> or <u>Monitors</u> in part 2.	🗌 YES 🗌 NO			
Shoulders and upper arms to be in-line with the torso, generally about perpendicular to the floor and relaxed (not elevated or stretched forward). If "no" refer to <u>Chairs</u> in part 2.	🗌 YES 🗌 NO			
Upper arms and elbows to be close to the body (not extended outward). If "no" refer to <u>Chairs</u> , <u>Work Surfaces</u> , <u>Keyboards</u> , and <u>Pointers</u> in part 2.	🗌 YES 🗌 NO			
Forearms, wrists, and hands to be straight and in-line (forearm at about 90 degrees to the upper arm). If "no" refer to <u>Chairs</u> , <u>Keyboards</u> , <u>Pointers</u> in part 2.	🗌 YES 🗌 NO			
Wrists and hands to be straight (not bent up/down or sideways toward the little finger). If "no" refer to <u>Keyboards</u> , or <u>Pointers</u> in part 2.	🗌 YES 🗌 NO			
Thighs to be parallel to the floor and the lower legs to be perpendicular to floor (thighs may be slightly elevated above knees). If "no" refer to <u>Chairs</u> or <u>Work Surfaces</u> in part 2.	🗌 YES 🗌 NO			
Feet rest flat on the floor or are supported by a stable footrest. If "no" refer to Chairs, Work Surfaces in part 2.	🗌 YES 🗌 NO			
SEATING–Consider these points when evaluating the chair:				
Backrest provides support for your lower back (lumbar area).				
Seat width and depth accommodate the specific user (seat pan not too big/small).				
Seat front does not press against the back of your knees and lower legs (seat pan not too long).				
Seat has cushioning and is rounded with a "waterfall" front (no sharp edge).	🗌 YES 🗌 NO			
Armrests , if used, support both forearms while you perform computer tasks and they do not interfere with movement.				
KEYBOARD/INPUT DEVICE–Consider these points when evaluating the keyboard or pointing device. The keyboard/input device is designed or arranged for doing computer tasks so the:				
Keyboard/input device platform(s) is stable and large enough to hold a keyboard and an input device.				
Input device (mouse or trackball) is located right next to your keyboard so it can be operated without reaching.				
Input device is easy to activate and the shape/size fits your hand (not too big/small).				
Wrists and hands do not rest on sharp or hard edges.				

WORK AREA–Consider these points when evaluating the desk and workstation. The work area is designed or arranged for doing computer tasks so the				
Thighs have sufficient clearance space between the top of the thighs and your computer table/keyboard platform (thighs are not trapped).	🗌 YES 🗌 NO			
Legs and feet have sufficient clearance space under the work surface so you are able to get close enough to the keyboard/input device.				
ACCESSORIES-Check to see if the:				
Document holder, if provided, is stable and large enough to hold documents.	🗌 YES 🗌 NO			
Document holder , if provided, is placed at about the same height and distance as the monitor screen so there is little head movement, or need to re-focus, when you look from the document to the screen.	🗌 YES 🗌 NO			
Wrist/palm rest, if provided, is padded and free of sharp or square edges that push on your wrists.	🗌 YES 🗌 NO			
Wrist/palm rest, if provided, allows you to keep your forearms, wrists, and hands straight and in-line when using the keyboard/input device.	🗌 YES 🗌 NO			
Telephone can be used with your head upright (not bent) and your shoulders relaxed (not elevated) if you do computer tasks at the same time.	🗌 YES 🗌 NO			
GENERAL				
Workstation and equipment have sufficient adjustability so you are in a safe working posture and can make occasional changes in posture while performing computer tasks.				
Computer workstation, components and accessories are maintained in serviceable condition and function properly.	🗌 YES 🗌 NO			
Computer tasks are organized in a way that allows you to vary tasks with other work activities, or to take micro-breaks or recovery pauses while at the computer workstation.				

PART II – OFFICE/COMPUTER IN-DEPTH ASSESSMENT TIPS

Monitors	$\overline{\mathbf{V}}$
Make sure the screen is large enough for adequate visibility. Usually a 15 to 20-inch monitor is sufficient. Smaller units will make it difficult to read characters and larger units may require excessive space.	
The angle and tilt should be easily adjustable.	
Flat panel displays take less room on the desk and may be more suitable for locations with limited space.	
Keyboards	\mathbf{i}
Split keyboard designs will allow you to maintain neutral wrist postures.	
Keyboards with adjustable feet will accommodate a wider range of keyboard positions and angles. Adjustable feet on the front as well as the back will further aid adjustments. Increased adjustability will facilitate neutral wrist postures.	
The cord that plugs into the CPU should be long enough to allow the user to place the keyboard and the CPU in a variety of positions. At least six feet of cord length is desirable.	
Consider a keyboard without a 10-key keypad if the task does not require one. If the task does require one occasionally, a keyboard with a separate 10-key keypad may be appropriate. Keyboards without keypads allow the user to place the mouse closer to the keyboard.	
Consider the shape and size of the keyboard if a keyboard tray is used. The keyboard should fit comfortably on the tray.	
Consider keyboards without built-in wrist rest, because separate wrist rests are usually better.	
Keyboards should be detached from the display screen if they are used for a long duration keying task. Laptop keyboards are generally not suitable for prolonged typing tasks.	
Keyboard Trays	
Keyboard trays should be wide enough and deep enough to accommodate the keyboard and any peripheral devices, such as a mouse.	
If a keyboard tray is used, the minimum vertical adjustment range (for a sitting position) should be 22 inches to 28 inches from the floor.	
Keyboard trays should have adjustment mechanisms that lock into position without turning knobs. These are frequently over tightened, which can lead to stripped threads, or they may be difficult for some users to loosen.	
Desks and Work Surfaces	\mathbf{i}
The desk area should be deep enough to accommodate a monitor placed at least 20 inches away from your eyes.	
Ideally, your desk should have a work surface large enough to accommodate a monitor and a keyboard. Usually about 30 inches is deep enough to accommodate these items.	
Desk height should be adjustable between 20 inches and 28 inches for seated tasks. The desk surface should be at about elbow height when the user is seated with feet flat on the floor. Adjustability between seated and standing heights is desirable.	
You should have sufficient space to place the items you use most often, such as keyboard, mouse, and monitor directly in front of you.	
There should be sufficient space underneath for your legs while sitting in a variety of positions. The minimum under-desk clearance depth should be 15 inches for your knees and 24 inches for your feet. Clearance width should be at least 20 inches.	

Desks and Work Surfaces [continued]	
Purchasing a fixed-height desk may require the use of a keyboard tray to provide adequate height adjustment to fit a variety of users.	
Desktops should have a matte finish to minimize glare. Avoid glass tops.	
Avoid sharp leading edges where your arms come in contact with work surfaces. Rounded or sloping surfaces are preferable.	
The leading edge of work surface should be wide enough to accommodate the arms of your chair, usually about 24 to 27 inches. Spaces narrower than this will interfere with arm wrests and restrict your movement. This is especially important in four-corner work units.	
Chairs	
The chair should be easily adjustable.	
The chair should have a sturdy five-legged base with good chair casters that roll easily over the floor or carpet.	
The chair should swivel 360 degrees so it is easier to access items around your workstation without twisting.	
Minimum range for seat height should be about 16 inches.	
Seat pan length should be 15 inches to 17 inches.	
Seat pan width should be at least as wide as the user's thighs. A minimum width of about 18 inches is recommended.	
Chair edges should be padded and contoured for support.	
Seat pan tilt should have a minimum adjustable range of about 5 degrees forward and backward.	
Avoid severely contoured seats as these limit seated postures and are uncomfortable for many users.	
Front edge of the seat pan should be rounded in a waterfall fashion.	
Material for the seat pan and back should be firm, breathable, and resilient.	
The seat pan depth should be adjustable. Some chairs have seat pans that slide forward and backward and have a fixed back. On others the seat pan position is fixed and the backrest moves horizontally forward and backward so the effective depth of the seat pan can be adjusted. Beware of chairs where the back only tilts forward and backward. These do not provide adequate adjustment for a wide range of users.	
The backrest should be at least 15 inches high and 12 inches wide and should provide lumbar support that matches the curve of your lower back.	
The backrest should widen at its base and curve in from the sides to conform to your body and minimize interference with your arms.	
The backrest should allow you to recline at least 15 degrees and should lock into place for firm support.	
The backrest should extend high enough to support your upper trunk and neck/shoulder area. If the backrest reclines more than about 30 degrees from vertical, a headrest should be provided.	
Armrests should be removable and the distance between them should be adjustable. They should be at least 16 inches apart.	
Armrest height should be adjustable between 7 inches and 10.5 inches from the seat pan. Fixed height armrests are not desirable, especially for chairs that have more than one user.	
Armrests should be large enough (in length and width) to support your forearm without interfering with the work surface.	
Armrests should be padded and soft.	

Chairs [continued]	<u> </u>
Most chairs are designed for weights under 275 pounds. If the user weighs more than 275 pounds, the chair must be designed to support the extra weight.	
Document Holders	<
The document holder needs to be stable but easy to adjust for height, position, distance, and viewing angle.	
If the monitor screen is your primary focus, purchase a document holder that will sit next to the monitor at the same height and distance.	
If the task requires frequent access to the document (such as writing on the document) a holder that sits between the keyboard and monitor may be more appropriate.	
Wrist Rests	<
Wrist rest should match the front edge of the keyboard in width, height, slope, and contour.	
Pad should be soft but firm. Gel type materials are recommended.	
Wrist rest should be at least 1.5 inches deep (depth away from the keyboard) to minimize contact pressure on the wrists and forearm.	
Mouse/Pointing Devices	<
Choose a mouse/pointer based on the requirements of your task and your physical limitations. There really is no difference, other than preference, among a mouse, trackball, or other device.	
A mouse should match the contour of your hand and have sufficient cord length to allow its placement next to the keyboard.	
If you choose a trackball, avoid ones that require the thumb to roll the ballthey may cause discomfort and possible injury to the area around your thumb.	
A smaller mouse may be more appropriate especially if you have small hands. Caution should be taken if a mouse is used by more than one person.	
A mouse that has sensitivity adjustments and can be used with either hand is desirable.	
Telephones	<u> </u>
If task requirements mandate extended periods of use or other manual tasks such as typing while using the phone, use a telephone with a "hands-free" headset.	
The telephone should have a speaker feature for "hands-free" usage.	
"Hands-free" headsets should have volume adjustments and volume limits.	
Desk Lighting	
Good desk lighting depends on the task you're performing. Use bright lights with a large lighted area when working with printed materials. Limit and focus light for computer tasks.	
The location and angle of the light sources, as well as their intensity levels, should be fully adjustable.	
The light should have a hood or filter to direct or diffuse the light.	
The base should be large enough to allow a range of positions or extensions.	

ERGONOMIC WORK AREA SCREENING AND ANALYSIS TOOL							
Body Part	Action Code	Physical Risk Factor	Duration (cumulative)	Visual Aid			
A – Awkward Posture							
Shoulders	A1	Working with the arms fully extended or Raising the hand(s) or the elbows above the shoulder(s) (48" for a 5 th %ile population) <i>in either a long-duration static hold (i.e. 15 min.)</i> or <i>in a short-duration repetitive manner (more than</i> <i>once per minute).</i>	2 hrs or more per day				
Neck	A2	Working with the neck bent more than 45° (without support or the ability to vary posture)	2 hrs or more per day	45			
, ,	A3	Working with the back bent forward more than 30° (without support or the ability to vary posture)	2 hrs or more per day	30°			
Ba	A4	Working with the back twisted more than 20°	2 hrs or more per day	200			
	A5	Repetitively <i>(more than 2 times/minute)</i> Working with the back twisted more than 20°	2 hours <u>continuously</u>	Top View			
Legs	A6	Squatting, crouching or kneeling	2 hrs or more per day	S A			
B – F	Repeate	ed Impact					
Hands, Knees	B1	Repetitively <i>(more than 1 per 5 minutes)</i> Using the hand (heel/base of palm) or knee as a hammer	2 hrs or more per day	- All			
C – F	orce						
	C1	Lifting more than 50 pounds <u>at any one time;</u>		No figure			
Back, shoulders	C2	Repetitively <i>(more than once per minute)</i> Lifting weight <i>(in pounds)</i> greater than the limits in the visual aid (Based on NIOSH '91 for a 50%ile person heights, and 5%ile reach)	4 hrs or more per day	54° 54° 54° 55° 10° 10° 10° 10° 10° 10° 10° 10			
	C3	Pushing/pulling with more than 50 pounds of initial force (e.g. truck with a total weight of 1000 pounds)	2 hrs or more per day	No figure			

Body Part	Action Code	Physical Risk Factor	Combined With	Duration (cumulative)	Visual Aid
C – I	Force (c	ontinued)			
Back	C4	Carrying 30 lbs or more at waist level	More than 25 feet or more than once every 5 minutes	2 hours or more per day	No figure
	C5		More than 3 times / minute	1.5 hrs or more per day	No figure
	C6	Pinching while exerting a force of 2 lbs or more per hand. (comparable to pinching half a ream of paper)	Wrists bent in: flexion 30° or more, or extension 45° or more, or deviation 30° or more.	1 hrs or more per day	Extension Deviation
hands	C7		No other risk factors	2 hrs or more per day	G
/rists,	C8		More than 3 times / minute	1.5 hrs or more per day	No figure
Arms, w	C9 Grippir an unsu weighin per han or with a fe more pe clampir jumper	Gripping an unsupported object(s) weighing 10 or more pounds per hand, or with a force of 10 pounds or more per hand (comparable to clamping light duty automotive jumper cables onto a battery)	Wrists bent in: flexion 30° or more, or extension 45° or more, or deviation 30° or more,	1 hrs or more per day	Extension Flexion
	C10		Wide grasp	1 hrs or more per day	No figure
	C11 Popotiti	on / Pooovory	No other risk factors	2 hrs or more per day	No figure
U – I		OII / Recovery	No other risk factors	6 brs or more per day	
veck, shoulders, elbows, wrists, hands	D2	Using the same motion more than twice per minute (excluding keying activities)	Wrists bent in: flexion 30° or more, or extension 45° or more, or deviation 30° or more (see figures above). AND High force hand exertion(s)	2 hrs or more per day	
	D3 Intensive keying and mousing	Awkward posture: including bent wrists (as described above), extended arms, tilted neck, back leaned forward.	2 hrs or more per day		
	D4	- 1 Contract Otraca	No other risk factors	7 hrs or more per day	
E -V	Ibratio	1/ Contact Stress			
ole	E1	Pressure against soft tissue (e.g	i. square edge / ridge)	30 min or more per day	
and, who body	E2	Using vibrating tools or equipment that typically have <u>high</u> vibration levels (>10 m/s ² chainsaws, jack hammers, percussive tools, riveting hammers)		30 min. or more per day	
	E3	Using vibrating tools or equipme moderate vibration levels (5 m/s	nt that typically have ² jig saws, grinders)	2 hrs or more per day	

TRAINING ATTENDANCE ROSTER ERGONOMICS			
Office Ergo Training Includes: Definitions Stressors Temperatur/Lighting CTDs and Risk Factors Workstation/Computer Set Up Hazards and Controls	 Manufacturing Ergo Training Includes: Definitions and Benefits Causes and Risks Lifting and Work Postures Force motions and Vibration Workstation/Computer Set Up 		 Kitchen/Restaurant Ergo Training Includes: Temperature/Lighting Work Hours Lifting and Carrying Postures (bending, reaching) Housekeeping ands slips/trips Materials Handling
<u>INSTRUCTOR:</u>		<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 by the safety information, procedures, rules, regulations and/or company policy as presented and instructed.			

Name of Interpreter, if utilized:

PROGRAM OVERVIEW

EYE WASH STATION AND SAFETY SHOWER SAFETY PROGRAM

REGULATORY STANDARD:

OSHA - 29 CFR 1910.151 ANSI Z358.1-2009

INTRODUCTION

Ensures the existence of suitable facilities for quick drenching or flushing of the eyes and body where potential exposure to injurious or corrosive materials exists. It highlights procedures and training requirements and defines installation and design specifications.

TRAINING

 All employees and supervisors who are exposed to, work with or near corrosive or injurious materials must be instructed on the use of eye wash stations and safety showers to ensure the features and operations of the unit are fully understood in the event of an emergency.

ACTIVITIES

- Assess area hazards to determine where eye wash stations and safety showers are required
- Install eye wash stations and safety showers, as required
- Ensure appropriate signs are placed to indicate the location of eye wash stations and safety showers, and operating instructions are placed at the units
- · Conduct inspections of installed safety equipment

FORMS

- Activation and Inspection Eye Wash Station Form
- Activation and Inspection Safety Shower Station Form
- Training and Attendance Roster Eye Wash and/or Safety Shower

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

EYE WASH STATION AND SAFETY SHOWER SAFETY PROGRAM

- 1. **Purpose.** The company requires that emergency shower and/or eye wash station facilities shall be provided whenever operations may result in personnel coming into contact with injurious corrosive materials. This program provides requirements for the use and maintenance of emergency showers and eye wash stations.
- **2. Scope.** Applies to all eye wash station and safety shower units and installations at the company or on company job site locations.

3. Responsibilities

- 3.1 Managers and Supervisors
 - 3.1.1 Assess area hazards to determine where eye wash stations and safety showers are required to be installed.
 - 3.1.2 Install eye wash stations and safety showers.
 - 3.1.3 Ensure appropriate signs are placed to indicate the location of eye wash stations and safety showers, and operating instructions are placed at the units.
 - 3.1.4 Ensure employees who work with injurious or corrosive materials are instructed in the use of eye wash stations and safety showers.
 - 3.1.5 Provide the resources for and manpower required for maintenance and testing of eye wash stations and safety showers.
- 3.2 Employees
 - 3.2.1 Attend training upon initial assignment and as workplace changes occur, as appropriate.
 - 3.2.2 Assist, as needed or required, in the installation, maintenance or testing of eye wash stations and safety showers.
 - 3.2.3 Notify supervision of any problems or deficiencies noted during eye wash station or safety shower inspection, maintenance or testing.

4. Procedure

- 4.1 Hazard Assessment
 - 4.1.1 Conduct Hazard Assessments to identify injurious or corrosive materials in the work area and to determine the need for eye wash stations and/or emergency showers. Safety Data Sheets may assist in this identification process.
 - 4.1.2 Conduct Hazard Assessments whenever work process changes or building renovation/occupancy affect the operation or requirements of emergency eye wash stations and showers.

- 4.1.3 Document this assessment.
- 4.2 Installation and Maintenance
 - 4.2.1 Ensure that emergency eye wash station and/or emergency showers are initially installed to meet the manufacturer's specifications and are tested and maintained in good operating condition whenever hazard assessments indicated the need for this equipment. Manufacturing installation instructions normally accompany the unit.
 - 4.2.2 Existing single nozzle designed eyewash installations requiring maintenance or repair shall be replaced with an approved dual nozzle design. Any new eyewash installation shall be of an approved dual nozzle design.
 - 4.2.3 Out-of-service units shall be tagged and all personnel in the area informed; before removing tag and returning the unit into service, a performance test shall be conducted to ensure proper operation.
 - 4.2.4 Potable water is preferred, but non-potable water is acceptable provided it is clean and that appropriate signs are posted.
 - 4.2.5 Where possible, water should be kept at tepid temperature (65°F 95°F).
 - 4.2.6 Distance from the hazard must be not more than a 10 second walking distance or 55 feet from the hazard.
 - 4.2.7 Drainage should be provided for shower units to prevent additional hazardous situations from occurring.
- 4.3 Recordkeeping
 - 4.3.1 Document the activation of emergency eye wash station and/or emergency shower equipment. A log book attached or near the equipment, or a sticker affixed to the unit will suffice.
 - 4.3.2 Document the employee training.
- 4.4 Activation and Testing
 - 4.4.1 Testing should be performed upon initial installation and this documentation should remain with the unit (via log book or sticker).
 - 4.4.2 Showers Plumbed shower units must be activated weekly, long enough to be sure flushing fluid is provided. Self contained shower units should be visually inspected per manufacturer's instructions and necessary cleaning or flushing fluid replacement should be determined.

- 4.4.3 Eye wash stations plumbed units, must be activated weekly; Self-contained units should be visually inspected per manufacturer's instructions and necessary cleaning or flushing fluid replacement should be determined.
 - 4.4.3.1 As part of the activation procedure, check for sharp projections and contamination on the nozzle area; activation should flow water 3 to 6 inches from the nozzle.
 - **NOTE:** The use of Drench hoses and Personal eyewash equipment (eyewash bottles) supports plumbed and self-contained equipment, but these SHALL NOT be used as a replacement for them. If they are used, employees shall be properly instructed on their use and limitations.

4.5 Housekeeping

- 4.5.1 Emergency eye wash station and/or emergency shower equipment must retain a clear path to the equipment. Supervision should be notified of obstructed paths.
- 4.5.2 Equipment must be kept in a clean and sanitary condition. Eye wash station caps or covers may be used, provided they meet regulatory requirements and are removed by the water pressure of the unit upon activation.
- 4.6 Notification
 - 4.6.1 Emergency response personnel and supervision should be immediately notified of any emergency eye wash station and/or emergency shower equipment activation, other than testing.
- **5. Safety Information.** This information is applicable to standard equipment. Where applicable to the workplace, there are additional requirements to be met for barrier free equipment with reference to the Americans with Disability Act and access to equipment for handicapped individuals.
 - 5.1 Valve Actuators
 - 5.1.1 For all equipment
 - 5.1.1.1 Shall be large enough to be easily located by the user, with a highly visible sign, and in a well lighted area (Darkrooms and Dark areas are an exception to this requirement).
 - 5.1.1.2 Shall activate in 1 second or less.
 - 5.1.1.3 Once activated shall remain on until intentionally shut off without requiring the use of the operators hands.

- 5.1.1.4 Shall be protected from freezing.
- 5.1.1.5 Shall be protected, as much as possible, from airborne or other contaminants without impeding the use of the equipment or requiring a separate motion to remove.
- 5.1.1.6 Shall have instructions posted to assist users.
- 5.1.1.7 Shall be free of projections or sharp objects which may be injurious to the user.
- 5.1.1.8 Shall be constructed of materials that will not corrode in the presence of flushing fluid.
- 5.1.2 Showers
 - 5.1.2.1 The activation handle shall not be located more than 69" from the surface on which the user stands. An extension device should be constructed to accommodate activation of the shower for persons with disabilities or persons in wheelchairs.
- 5.2 Spray
 - 5.2.1 For all equipment
 - 5.2.1.1 Whenever practical, equipment should deliver tepid or tempered water. Temperature of the flushing fluid should not exceed 100 degrees Fahrenheit (38 degrees Celsius).
 - 5.2.1.2 In circumstances where chemical reaction is accelerated by flushing fluid temperature, a medical advisor should be consulted for the optimum temperature for each application.
 - 5.2.1.3 While cold flushing fluid temperatures provide immediate cooling after chemical contact, prolonged exposure to cold fluids may affect the ability to maintain adequate body temperature and can result in the premature cessation of the equipment usage.
 - 5.2.2 Showers
 - 5.2.2.1 Deliver a spray pattern of 20 inches in diameter at 60 inches from the surface on which the user stands.
 - 5.2.2.2 Located at least 16 inches from any obstruction.
 - 5.2.2.3 Fluid must be substantially dispersed throughout the pattern.
 - 5.2.2.4 Delivers 20 gallons per minute for a minimum of 15 minutes.

- 5.2.3 Eye wash stations
 - 5.2.3.1 Delivers a spray pattern of 4" across (3-6" away from each nozzle).
 - 5.2.3.2 Fluid must be substantially dispersed throughout the pattern.
 - 5.2.3.3 Delivers 0.4 gallons per minute for a minimum of 15 minutes.

5.2.4 Eye/Face units

- 5.2.4.1 Delivers a spray pattern of 4" in length.
- 5.2.4.2 Fluid must be substantially dispersed throughout the pattern.
- 5.2.4.3 Delivers 3 gallons per minute for a minimum of 15 minutes.

5.3 Delivery System

- 5.3.1 For all equipment
 - 5.3.1.1 Constructed of materials that will not corrode in the presence of flushing fluid.
 - 5.3.1.2 Designed so as not to be injurious to the user.
 - 5.3.1.3 Shall have no sharp projections or objects.
 - 5.3.1.4 Shall be protected from contamination.
 - 5.3.1.5 Shall be protected from freezing.
 - 5.3.1.6 The water supply must be continuous and uninterruptible for the required duration.
- 5.3.2 Showers
 - 5.3.2.1 At least 1 inch pipe to deliver flow, supply lines may be 1.25 inch line.
 - 5.3.2.2 Shower Assembly shall be 82-96 inches in height from the surface on which the user stands.
 - 5.3.2.3 Enclosures, if used, will have a minimum of 34 inches in diameter.
 - 5.3.2.4 Shall have supply lines which deliver 30 lbs. per-square-inch of pressure at maximum flow.
5.3.3 Eye wash stations

- 5.3.3.1 Designed to provide enough room to allow the eyelids to be held open with hands.
- 5.3.3.2 Provide fluid to both eyes simultaneously.
- 5.3.3.3 New installations or modifications shall have 2 sets of parallel lines painted or adhered to back surface of eyewash. These lines will be set 1.25 inches and 3.25 inches apart from the center of the eyewash and are designed to assist the user in guiding the eyes into the stream. The unit should deliver the flushing fluid between these lines.
- 5.3.3.4 Shall have supply lines which deliver a minimum pressure of 30 psi and a maximum pressure of 90 psi at maximum flow.
- 5.3.3.5 Shall be 33-45 inches from the surface on which the user stands and shall be at least 6 inches from the wall or other obstruction.
- 5.3.4 Eye/face units
 - 5.3.4.1 Designed to provide enough room to allow the eyelids to be held open with hands.
 - 5.3.4.2 Shall be 33-45 inches from the surface on which the user stands and shall be at least 6 inches from the wall or other obstruction.
 - 5.3.4.3 Shall have supply lines which deliver a minimum pressure of 30psi and a maximum of 90psi at maximum flow.

5.4 Location

- 5.4.1 For all equipment
 - 5.4.1.1 Not more than a 10 second unobstructed walking distance from the hazard or 55 feet from the hazard.
- 5.4.2 Showers
 - 5.4.2.1 16 inches from any obstruction or wall (minimum).
- 5.4.3 Eye wash stations
 - 5.4.3.1 If a highly hazardous or corrosive material is used, the eye wash station should be in the direct vicinity of the hazard to facilitate immediate use.

5.5 Floor Markings

5.5.1 Are RECOMMENDED - Should be clearly marked with yellow, as shown:



- 5.6 Additional Information
 - 5.6.1 Users of emergency eye wash stations should hold eye(s) open and roll eyeballs to apply flushing fluid to all parts of the eye and under the eyelids.
 - 5.6.2 Combination units should comply with all of the above requirements and each piece (shower, eye wash station, and eye/face) should operate simultaneously.
 - 5.6.3 Personal Eyewash Bottles and Drench hoses are designed to supplement the use of Emergency Eye wash stations and Showers and are not designed to replace them.

6. Training and Information

- 6.1 All employees who are exposed to, work with or work in proximity to injurious or corrosive materials shall be trained in the use of emergency eye wash stations and showers as follows:
 - 6.1.1 Location of the equipment.
 - 6.1.2 Hazardous conditions which require the equipment use.
 - 6.1.3 Operation of equipment.
 - 6.1.4 Providing emergency assistance to others.
 - 6.1.5 Employees should be aware not to store materials or product in front of, near or in the pathway to equipment or to cover floor markings.

7. Definitions

- Activation Activation consists of turning the unit on to assure water flow (to flush the line).
- *gpm* Gallons Per Minute.
- Monitored or Supervised System a water or flow line with alarm systems or flow gauges which will notify some authority when flow is decreased or interrupted.
- Testing Testing consists of turning the unit on, checking flow rate, flow pattern, spread, assuring components of the equipment are operating properly, and verifying that all signs, labels or markings are legible, visible and appropriate.

ACTIVATION AND INSPECTION _ EYE WASH STATION Weekly Activation/Inspection Log

DATE OF LAST FULI INSTA	_ TEST OR ALLATION:	
DATE OF ACTIVATION (plumbed units) OR CLEANING (both plumbed and wall units)	Signature	Unit OK?
		□ YES □ No
		□ YES □ No

NOTE: Any deficiencies noted during inspection, activation or cleaning must be IMMEDIATELY reported to management.

ACTIVATION AND INSPECTION _ SAFETY SHOWER STATION Weekly Activation & Inspection Log

DATE OF LAST FULL INSTA	L TEST OR ALLATION:	
DATE OF ACTIVATION OR INSPECTION	Signature	Unit OK?
		□ YES □ No
		□ YES □ No

NOTE: Any deficiencies noted during inspection, activation or cleaning must be IMMEDIATELY reported to management.

TRAINING ATTENDANCE ROSTER EYE WASH and/or SAFETY SHOWER				
Eye Wash Station Training Include	s:	Safety Show	ver Station Trai	ning Includes:
Medical Response		Medic	al Response	-
Bosponsibilitios		Bospo		
· itesponsibilities		· Kespt		
Maintenance and Activation		• Mainte	enance and Activ	vation
Housekeeping and Clearance		 House 	ekeeping and Cle	earance
 How to use eye wash stations 		How te	o use safety sho	wer stations
INSTRUCTOR:		DATE:	Ŀ	OCATION:
NAME (Please Print)		SIGNATU	JRE	Training Type
By signing below, I attest that I have atte	ended the	e safety training	for the topic indic	ated, and will abide by
the safety information, procedures, rules	, regulati	ons and/or con	pany policy as pre	esented and instructed.
				□ Eye wasn □ Safety Shower
				Fve Wash
				□ Safety Shower
				Eye Wash
				Safety Shower
				Eye Wash
				□ Safety Shower
				□ Eye Wash
				Safety Shower Shower
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				□ ⊑ye wasn □ Safety Shower
				Eve Wash
				□ Safety Shower
				Eye Wash
				Safety Shower

Name of Interpreter, if utilized:

PROGRAM OVERVIEW

FALL PROTECTION (PERSONAL FALL ARREST SYSTEM) SAFETY PROGRAM

REGULATORY STANDARD: OSHA - 29 CFR 1910.66, 132 -29 CFR 1926 Subpart M

INTRODUCTION

Fall protection systems are required when working from heights greater than 6 feet in construction and greater than 4 feet in general industry and a guardrail system is not in place, above hazardous equipment and working in an aerial lift bucket. This program establishes procedures for fall hazard control, inspections, equipment maintenance, workplace evaluations and employee training.

TRAINING

- Employees trained initially in the type of fall protection system used. Training includes classroom instruction in the hazards of fall protection and the type of protective systems used.
- Annual re-training is required in some states.

ACTIVITIES

• Determine if fall hazards are present in the workplace. Ensure these hazards are controlled through guardrail systems or that employees have appropriate alternative fall protection equipment and training.

FORMS

- Fall Hazard Evaluation
- · Fall Protection Equipment Inspection Checklist
- Training Certificate
- Training Attendance Roster

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FALL PROTECTION (PERSONAL FALL ARREST SYSTEM) SAFETY PROGRAM

- 1. **Purpose.** The hazards of potential falls at heights of 4 feet and above (or 6 feet and above at construction sites) will be addressed in this document. This safety program describes a systematic approach that must be used to protect and prevent people from falling. This safety program also lists some of the most common fall hazards, and provides recommendations and guidelines for selecting fall arrest systems. 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 fall protection procedures fail
- 2. Scope. This program encompasses the total workplace regardless of the number of workers employed or the number of work shifts. It also applies to fall hazards on off-site jobs or activities to which company employees are exposed.

3. Responsibilities

- 3.1 Management/Supervisors
 - 3.1.1 Assess the workplace, or each job site, for fall hazards.
 - 3.1.2 Provide fall protection equipment, as needed or required.
 - 3.1.3 Enforce the use of appropriate fall protection systems and equipment.
 - 3.1.4 Ensure employees are properly trained in the use of fall protection systems and equipment.
 - 3.1.5 Ensure equipment is inspected prior to each use, when subjected to falls or impact loads, and on a frequent and regular basis.
 - 3.1.6 As required for construction, write fall protection procedures and ensure they are followed.
 - 3.1.7 Ensure fall protection systems are installed and set up by a professional engineer or other qualified person.
 - 3.1.8 For Contractors Inform the contractor of the company's Fall Protection Safety Program. The contractor must agree to follow the company's policy with regard to any of any hazards confronted or created in conducting operations involving fall protection within company owned facilities.

3.2 Employees

- 3.2.1 Attend appropriate training.
- 3.2.2 Utilize fall protection systems and equipment, as needed or required.
- 3.2.3 Inspect equipment before each use. Equipment that has been subjected to a fall or impact-load must be removed from service until inspected by the manufacturer or designated professional engineer.
- 3.2.4 Report hazards and hazardous conditions to your Supervisor immediately.

4. Procedure

- 4.1 Facility/Department Evaluation. The workplace will be assessed before each assigned job for potential fall hazards. (The Fall Hazard Evaluation Form may be used to document fall hazards.)
- 4.2 Proper fall arrest equipment will be used for jobs requiring fall protection when elimination of the hazard(s) is not possible.
- 4.3 If anchor points are required, involve qualified Engineers when load rating of anchorage points must be determined or is in doubt.
- 4.4 Personal Fall Arrest Systems (PFAS). A PFAS consists of a full-body harness, lanyard, anchor point and may include a lifeline, and energy shock absorber.
 - 4.4.1 Before using a PFAS , the supervisor and/or the user must address such issues as:
 - 4.4.1.1 The user must be trained to recognize fall hazards and to use fall arrest systems.
 - 4.4.1.2 Components of the PFAS must be compatible with the manufacturer's instructions.
 - 4.4.1.3 Appropriate anchorage points and attachment techniques must be reviewed.
 - 4.4.1.4 Free fall distance must be considered so that a worker will not strike a lower surface or object before the fall is arrested.
 - 4.4.1.5 The full-body harness and all of its components must be inspected before each use.
 - 4.4.2 Standard Harnesses. Harnesses for general purpose work should be Class III, constructed with a sliding back D-ring. Standard harnesses are suitable for continuous fall protection while climbing, riding, or working on elevated personnel platforms. They are suitable for positioning, fall arrest, and the rescue and evacuation of people who are working at elevated heights.

- 4.4.3 Retractable Lifeline Lanyard. A retractable lifeline lanyard is a fall arrest device used in conjunction with other components of a fall arrest system. A properly inspected and maintained retractable lifeline lanyard, when correctly installed and used as part of the fall arrest system, automatically stops a person's descent in a short distance after the onset of an accidental fall. Retractable lifeline lanyards should be used by one person at a time.
- 4.4.4 Anchor Points
 - 4.4.4.1 Anchor points will not deteriorate when located in corrosive environments such as areas where acid and alkali chemicals are handled and stored.
 - 4.4.4.2 Capable of withstanding the ultimate load of 5,000 lbs. per employee attached.

5. Safety Information

- 5.1 Inspection and Maintenance. To ensure that fall protection systems are ready and able to perform their required tasks, a program of inspection and maintenance will be implemented and maintained. The following as a minimum, will comprise the basic requirements of the inspection and maintenance program:
 - 5.1.1 Equipment manufacturer's instructions will be incorporated into the inspection and preventive maintenance procedures.
 - 5.1.2 All fall protection equipment will be inspected prior to each use or in accordance with the manufacturers guidelines.
 - 5.1.3 Any fall protection equipment subjected to a fall or impact-load will be removed from service immediately and inspected by a qualified person (sent back to the manufacturer).
 - 5.1.4 Check all equipment for mold, damage, wear, mildew, or distortion.
 - 5.1.5 Hardware should be free of cracks, sharp edges, or burns.
 - 5.1.6 Ensure that no straps are cut, broken, torn or scraped.
 - 5.1.7 Special situations such as radiation, electrical conductivity, and chemical effects will be considered.
 - 5.1.8 Equipment that is damaged or in need of maintenance will be tagged as unusable, and will not be stored in the same area as serviceable equipment.
 - 5.1.9 Anchors and mountings will be inspected before each use for signs of damage.

6. Training and Information

- 6.1 Training is required for all employees who will use a PFAS. Training will include:
 - 6.1.1 When fall protection is required
 - 6.1.2 What equipment is necessary
 - 6.1.3 A description of fall hazards in the work area
 - 6.1.4 Procedures for using personal fall arrest systems
 - 6.1.5 Equipment limitations
 - 6.1.6 The elements encompassed in total fall distance
 - 6.1.7 Prevention, control and fall arrest systems
 - 6.1.8 Inspection and storage procedures for the equipment
 - 6.1.9 Maintenance and Care
 - 6.1.10 Employee must demonstrate an understanding of the training.
- 6.2 Refresher training. Refresher training must encompass all the requirements for initial training, and be provided whenever there is reason to believe the employee's knowledge is insufficient.
 - 6.2.1 Retraining will be provided for employees whenever (and prior to) a change in their job assignments, a change in the work place, type of fall protection equipment used, or when a known hazard is added to the work environment which affects the Fall Protection Safety Program.
 - 6.2.2 When the employer has reason to believe that the employee cannot demonstrate and understanding of the training.

7. Definitions

- Ø Anchorage A secure point of attachment for lifelines, lanyards or deceleration devices.
- Body belt A strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.
- Ø Body harness Straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

- Connector A device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabineer, or it may be an integral component of part of the system.
- Deceleration device Any mechanism with a maximum length of 3.5 feet, such as a rope grab, rip stitch lanyard, tearing or deforming lanyards, self-retracting lifelines, etc. which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.
- *ø Energy shock absorber -* A device that limits shock-load forces on the body.
- *• Free fall* The act of falling before a personal fall arrest system begins to apply force to arrest the fall.
- *Free fall distance* The vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall (maximum of 6 feet). This distance excludes deceleration distance, and lifeline/lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.
- Lanyard A flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline or anchorage.
- Lifeline A component consisting of a flexible line for connection to an anchorage at one end to hang vertically or for connection to anchorages at both ends to stretch horizontally and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.
- Ø Personal fall arrest system A system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.
- *e Retractable lifeline lanyard-* A fall arrest device that allows free travel without slack rope, but locks instantly when a fall begins.
- Self-retracting lifeline/lanyard A deceleration device containing a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.
- Snap-hook A connector comprised of a hook-shaped member with a normally closed keeper, or similar arrangement, which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Snap-hooks are generally one of two types:
 - The locking type with a self-closing, self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection.
 - The non-locking type with a self-closing keeper which remains closed until pressed open for connection or disconnection. As of January 1, 1998, the use of a non-locking snap-hook as part of personal fall arrest systems and positioning device systems is prohibited.

	FALL HAZARD EVALUATION					
Designa	tion:		Location:			
Date As	sessed:	Related Operating Procedures	Reviewed:	Location Marked an	d Entry Co	ontrolled:
		FALL HAZARD ASSE	ESSMENT C	HECKLIST		
Can an e	employee e	enter the area without restriction and	d perform w	ork?	□ Yes	🗆 No
Are fall p	revention	systems such as cages, guardrails,	toeboards,	man lifts in place?	□ Yes	🗆 No
Have slip	pping and t	ripping hazards been removed or c	controlled?		□ Yes	🗆 No
Have vis	ual warnin	gs of fall hazards been installed?			□ Yes	🗆 No
Can the	distance a	worker could fall be reduced by ins	stalling platfo	orms, nets etc.?	□ Yes	🗆 No
Are any	permanent	tly installed floor coverings, gratings	s, hatches, o	r doors missing?	□ Yes	🗆 No
Does the	e location c	contain any other recognized safety	and or healt	th hazards?	□ Yes	🗆 No
Is the sp	ace desigr	nated as a Permit Required Confine	ed Space?		□ Yes	🗆 No
Have an	chor points	been designated and load tested?)		□ Yes	🗆 No
Assessr	nent Infor	mation: (indicate specifics with ini	tials)		<u> </u>	
Initial	Hazard		1	Remarks/Recommend	dations	
	Total pot	ential fall distance:				
	Number	of workers involved:				
	Frequen	cy of task:				
	Obtainab	ble anchor point strength:				
	Required lbs)	anchor point strength: (not less the	an 5000			
Addition	al Requir	ements:				
 Poten 	tial enviror	nmental conditions that could impac	ct safety:			
Initial	Conditio	on		Remarks/Recommend	dations	
 Possi 	ble require	d structural alterations:				
Initial	Alteratio	n		Remarks/Recommend	lations	
 Possi 	ble task m	odification that may be required:				
Initial	Task			Remarks/Recommend	dations	

 Training 	rec	quirements:		_			
Initial	R	equirement		Remar	ks/Recom	mendations	
◆ Persona	l pr	otective equipment required:					
Initials		Requirement			Remarks	s/Recommenda	tions
	ed		AUTHORI	ZATION	l		
l acknowle have detai	edg led	e that I have conducted a Fall H the findings of the assessment * Further d □	azard Asses on this form. etailed on att I Yes □ No	sment o achme	of the abo nt:	ve designated	location and
Name:				Sign	ature:		
Title:				Date	:		Time:
	A	SSESSMENT FORM RETENTION		ION		ATTACH	MENTS
Permanen	t R	etention File:	Location:			🗌 Yes	🗌 No
Date Filed			Filed By:			1	

• Breakdown of vertical and horizontal movement: (sketch out work task):

FALL PROTECTION EQUIPMENT INSPECTION CHECKLIST				
Equipment Assessed: Assessor: Da				
Safety	Belt and Harness Inspection			
Visual inspections of fall protection equipment shall be conducted before each use. If any defects described in this checklist are found, the equipment must not be used. Beginning at one end, holding the body side of the belt/harness toward you, grasp the belt with your hands, placing them six to eight inches apart. Bend the belt into an inverted "U" and examine the surface for damaged or broken fibers, pulled stitches, cuts, abrasions or chemical damage. FOLLOW THIS PROCEDURE ALONG THE ENTIRE LENGTH ON THE INSIDE AND OUTSIDE OF THE BELT/HARNESS				
CO	NDITION	PASS	FAIL	
Inspect for frayed or broken strands. Broken webbing strands appear as tufts on the webbing surface. Check for thread separation or rotting both inside as well as outside of the body nad.				
Buckle tongues should be free of distortion buckle frame and move freely back and fort frame. Check for distortion or sharp edges				
The tongue or billet of the belts receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Belts using punched holes without grommets should be checked for torn or elongated holes causing slippage of the buckle tongue. Check for excessive elongation or distortion				
Rivets should be tight and unmovable with fingers. Body site rivet base and outside rivet burr should be flat against the material. Bent rivets will fail under stress.				
Note the condition of "D" ring rivets and "D" ring metal wear pads (if any). Discolored, pitted or cracked rivets indicated chemical corrosion.				
Friction buckles must be inspected for distors straight. Pay special attention to corners and	ortion. The outer bars and center bars must be attachment points of the center bar.			
Sliding bar buckles must have the buckle fra and sharp edges. The sliding bar should smooth. Inspect the corners and ends of the	me and sliding bar inspected for cracks, distortion move freely. The knurled edge will slip if worn sliding bar carefully.			
NEVER CUT OR PUNCH ADDITION	AL HOLES IN THE SAIST STRAP OR STREN	GTH MEI	MBERS	

Safety Strap, Lanyard and Hardware Inspection

Only use snaps and "D" rings which are compatible with each other. When inspecting lanyards, begin at one end and work to the opposite end. Slowly rotate the lanyard so that the entire circumference is checked.

CONDITION	PASS	FAIL
Inch by inch visual inspection for fiber laceration or stitch damage is done by flexing the strap in an inverted "U".		
Strap buckles shall be inspected in the same banner as waist belt/harness buckles. (Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on frame. Check for distortion or sharp edges.)		
Snap hooks shall be checked for distortion of the hook or frame attachment to the belt. The keeper (latch) should seat into the snap nose without binding or obstruction and the keeper spring should have sufficient force to close the keeper firmly.		
The thimble must be movable in the eye of the splice and the splice shall have no loose or cut strands. The thimble must be free of sharp edges, distortion or cracks.		
All rivets shall be tight, free of distortion or wear and without cracks, sharp edges or corrosion.		
Inspect wire rope lanyards for cuts or broken strands and unusual wearing patterns.		
Inspect fiber rope lanyards for weakened areas by examining changes in the original diameter.		
Inspect closely the forged steel "D" rings for cracks or other defects. Inspect the assembly of the "D" rings to the body pad or "D" ring saddle. If the "D" ring can be moved vertically, independent of the body pad or "D" saddle, the belt should be replaced. The "D" ring bar shall be at a 90 degree angle with the long axis of the belt and should pivot freely.		

Webbing Inspection

Type of webbing	Heat	Chemical	Molten Metal or Flame	Paint or Solvents
Cotton	Scorches at 200 degrees to 250 degrees F, and turns a yellow color. Turns brown at 285 degrees F and is destroyed.	Changed in color depend on chemical exposure. Changes to light color or turns brown. Fibers may break when pulled or stressed.	Charred black marks or brown pockmarks. Holes through the webbing.	Paint which has saturated the webbing causing hardening and fiber breaks. Paints containing lead will attack webbing fibers.
Nylon and Cordura	In excessive heat nylon becomes brittle and has a shriveled, brownish appearance. The fibers will break when flexed. Should not be used above 200 degrees F.	Change in color usually appearing as a brownish smear or smudge. Transverse cracks when the belt is bent over. Loss of elasticity.	Webbing strands fuse together. Hard shiny spots which are brittle. Will not support combustion.	Paint which penetrates and dries restricts movement of fibers. Drying agents and solvents in some paints will appear as chemical damage.
Polyester, Dacron	Same as nylon except do not use above 180 degrees F.	Same as nylon.	Same as nylon except will support combustion.	Same as nylon.

CERTIFICATE OF TRAINING
This certificate verifies that
Fall Protection Training
Date
Company Name

TRAINING ATTENDANCE ROSTER FALL PROTECTION (PFAS)

Fall Protection (PFAS) Safety Training Includes:

- Definitions and Hazard Assessment
- · When PFASs are required and Guardrail systems
- · Components of a PFAS and how to wear a PFAS
- Calculation of Fall Distance
- Equipment Inspection and Maintenance
- Special Systems Use (aerial lifts, scissors lifts, etc,)

INSTRUCTOR:	DATE:	LOCATION:		
NAME (Please Print)				
FIRST - MI - LAST	SIGNATURI	E		
By signing below, I attest that I have attended the safe	ety training for the topic indicat	ed, and will abide		
by the safety information, procedures, rules, regula	tions and/or company policy as	s presented and		
instruct	ed.			

Name of Interpreter, if utilized: _

PROGRAM OVERVIEW

FIRST AID AND EMERGENCY MEDICAL RESPONSE SAFETY PROGRAM

REGULATORY STANDARD: OSHA - 29 CFR 1910.151

29 CFR 1910.151 - 29 CFR 1926.23, 1926.50

INTRODUCTION

This program is designed to assist the company to insure that medical personnel are readily available for emergency response and applies to all company facilities and employees, including any on-site emergency medical response personnel.

TRAINING

- · All employees and supervisors trained on how to summon emergency assistance
- · Where required, employees trained in the use of emergency eyewash and safety showers
- Any on-site emergency response teams trained appropriately in skills and bloodborne pathogens

ACTIVITIES

- Determine if on-site first aid or emergency response teams or designated and trained personnel are required (if ambulance or EMT/fire department is more than 5 minutes away)
- Designate, train and equip emergency response personnel, if appropriate
- Establish agreements with local ambulance or fire/EMT services to provide emergency medical response, if appropriate
- · Evaluate potential for injuries and implement hazard controls where possible
- Write and communicate policies and procedures

FORMS

- **§** First Aid Kit Supply List
- **§** First Aid Basics Training Roster

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

FIRST AID AND EMERGENCY MEDICAL RESPONSE SAFETY PROGRAM

- 1. **Purpose.** This program is designed to provide guidance and information to companies with regard to first-aid and emergency medical response situations. Included in this program is information on the treatment and prevention of industrial burns.
- 2. Scope. This program applies to all company facilities and employees, including any on-site emergency medical response personnel.

3. Responsibilities

- 3.1 Management
 - 3.1.1 Determine if on-site first aid or emergency response teams or designated and trained personnel are required. If trained emergency medical response (an ambulance or EMT/fire department) is more than 5 minutes from the facility or site, a certified and trained first aid response person is required to be present at the work site for each work shift.
 - 3.1.1.1 Designate, train and equip emergency response personnel, if appropriate. Training is at no cost to the employee and is provided at a reasonable time and place whenever possible; OR
 - 3.1.1.2 Establish agreements with local ambulance or fire/EMT services to provide emergency medical response, if appropriate.
 - 3.1.2 Inform employees on how to summon emergency assistance.
 - 3.1.3 In conjunction with the Safety Officer and/or Human Resources, notify the injured/ill employee's family of the incident, as needed or required.
- 3.2 Employees
 - 3.2.1 Summon emergency medical assistance, when required.
 - 3.2.2 Notify management, as soon as possible.
 - 3.2.3 Notify the Safety Officer or Human Resources as soon as possible after the emergency response personnel have taken charge of the situation.
- 3.3 On-Site Medical Response Team/Person (as appropriate)
 - 3.3.1 Attend Basic First Aid or EMT training.
 - 3.3.2 Attend Bloodborne Pathogen training.
 - 3.3.3 Maintain training.
 - 3.3.4 Provide basic first aid for injured or ill employees who require assistance.
 - 3.3.5 Maintain supplies and equipment, as needed, for emergency response.

4. Procedure

- 4.1 Summoning Emergency Response Personnel
 - 4.1.1 Employees must be informed of the proper procedure to summon emergency medical assistance from their work area or job site (e.g. telephoning "911" or another number).
 - 4.1.1.1 It is highly recommended that if summoning assistance is other than "dial 911", that the emergency phone number be placed on each telephone to assist employees during an emergency.
 - 4.1.2 Information should be provided to the emergency service provider on:
 - 4.1.2.1 The nature of the injury/illness, if known.
 - 4.1.2.2 The specific location (company address or specific work area) of the injured employee.
 - 4.1.2.3 Any other pertinent details of the incident.
 - 4.1.2.4 Any procedures or escorts required to enter the facility.
 - 4.1.3 If possible, remain with the injured or ill employee to provide comfort and support. Designate another employee to meet the emergency response personnel, if appropriate.
- 4.2 Potential for Industrial Burns
 - 4.2.1 Jobs where there is potential injury from either chemical burns or heat producing equipment that may cause burns to the skin or body must be evaluated and appropriate control measures put into place to protect employees from these hazards.
 - 4.2.1.1 Control measures include engineering and design controls to prevent contact (insulating materials or enclosures), administrative controls (procedures, substitution of less hazardous materials or equipment), or personal protective equipment (gloves, clothing, other PPE).
 - 4.2.2 Training is provided to employees on the heat or chemical hazards of the task or activity, and the first aid procedures for treatment.
 - 4.2.3 Signs are posted in areas where there is a reasonable likelihood of burn injury from heat producing equipment.
 - 4.2.3.1 Signs should read "Danger Heat-Hazard Area. Thermal Protective Clothing or Equipment required, or similar language.

- 4.2.3.2 Signs must be in English, although additional languages may be used in addition to English.
- 4.3 Control Measures for Reducing Heat or Burn Injury
 - 4.3.1 Engineering Controls should reduce heat levels to the lowest level reasonably achievable.
 - 4.3.1.1 Controls include:
 - 4.3.1.1.1 Placement of shielding or barriers between equipment and employees
 - 4.3.1.1.2 Isolating heat sources through enclosures
 - 4.3.1.1.3 Mechanizing or modifying processes or operations
 - 4.3.2 Administrative Controls should be implemented when engineering controls can not reduce heat to the desired level.
 - 4.3.2.1 Controls include:
 - 4.3.2.1.1 Limiting the amount of time workers spend performing the task or activity
 - 4.3.2.1.2 The use of specialized tools to the extent possible
 - 4.3.2.1.3 Enforcement of specific written procedures that outline the steps to safely work with the heat producing equipment.
 - 4.3.3 Protective Equipment should be implemented after it has been determined that engineering and administrative controls can not reduce heat exposures to the desired levels.
 - 4.3.3.1 Protective equipment includes:
 - 4.3.3.1.1 Heat resistant gloves and clothing
 - 4.3.3.1.2 Respiratory protection.

5. Safety Information

- 5.1 Eyewash and Safety Showers
 - 5.1.1 Where eyes or body of any person can be exposed to injurious, corrosive or highly hazardous chemicals, or where these chemicals are used or stored in the workplace, facilities for the quick drenching of eyes and the body are required.

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- 5.1.1.1 Equipment must meet the requirements of the American National Standards Institute (ANSI) for Eyewash and Safety Showers ANSI Z358.1
- 5.1.2 Employees will be trained in the use of emergency eyewash and safety showers, as needed or required.
- 5.2 Burns
 - 5.2.1 Correct assessment of a burn's severity is one of the first critical steps in properly treating and managing the injury. Burns are classified both by their depth and amount of body surface area injured. First, second, and third degree burns identify the layers of skin damaged while the terms minor, moderate and critical describe both the depth and extent of the tissue injured.
 - 5.2.1.1 First-degree burns. These are burns involving only the outer layers of the epidermis. Characterized by redness, itching, and burning, these burns are generally considered minor and don't require the attention of a physician. Mild sunburns are typical first-degree burns.
 - 5.2.1.2 Second-degree burns. These are burns that damage both the epidermis and the dermis (second layer of skin). These burns cause blisters and are prone to infection, often requiring medical attention. Second-degree burns are also sub-classified as superficial or deep dermal depending on the extent of injury. Burns are also described by their cause, such as thermal, chemical, electrical, radiation, and flash.
 - 5.2.1.3 Third-degree burns. These are burns that destroy both the epidermis and the dermis. These burns are distinguished by their dry surface and pearly white or charred appearance. Third-degree burn patients often experience no pain following their injury because nerve endings are impaired. Third-degree burns always require the attention of a hospital burn center.
 - 5.2.1.4 Thermal (heat burns). These are burns that are caused by contact with substances at temperatures above the boiling point of water. These burns often occur in conjunction with other types of burns.
 - 5.2.1.5 Chemical burns. These are burns that are caused by contact with materials such as sodium hydroxide, phenol, sulfuric or hydrochloric acid. These corrosive substances generate heat, creating a thermal burn in addition to a chemical burn.

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- 5.2.1.6 Electrical burns. These are burns that are common among gas and electrical workers and are also considered thermal burns because heat is created while the current passes through the body. These burns are more treacherous than they first appear because the body conducts the electrical current to the heart, muscular and vascular system causing extensive internal damage. Because they may be electrocuted themselves, bystanders are strongly cautioned against touching these types of burn victims until the electrical source has been removed.
- 5.2.1.7 Sun-burns. These are the most common type of radiation burns. Other sources of ultraviolet or nuclear radiation can also cause burns.
- 5.2.1.8 Flash-burns. These are burns that are usually minor cornea injuries, the consequences of looking directly into an extremely bright light. Welders and those working with high-powered electrical equipment often experience this syndrome. Flash burn symptoms include watery eyes, searing pain and photophobia (a marked sensitivity to light), occurring four to six hours following the injury. Although flash burns are regarded as more of an annoyance than a serious injury, prolonged exposure to a powerful light source without protective eyewear can result in permanent blindness.

6. Training and Information

- 6.1 Employees will be trained in:
 - 6.1.1 How to summon emergency medical assistance.
 - 6.1.2 The use of emergency eyewash and safety showers, as needed or required.
 - 6.1.3 The use of personal protective equipment and other controls required to reduce heat exposure levels.
 - 6.1.4 The basic first aid treatment of the various types of burns if they work with heat exposure hazards, as needed or required.
- 6.2 On-site emergency response personnel will be trained (and certified) in basic first aid or EMT level response, and annually in the requirements of the Bloodborne pathogens standard. Certifications must be maintained appropriately.

7. Definitions

EMT – Emergency Medical Technician.

FIRST AID KIT SUPPLY LIST

Based on the number of employees the following items should be available in First Aid Kits located at the job site. (Listed Supplies are Required for California Construction sites)

First Aid Kit Supplies:	1-5 Employees	6-15 Employees	16-200 Employees	Over 200 Employees
Adhesive dressings	X	X	X	X
Adhesive tape rolls, 1-inch wide	X	X	X	X
Eye dressing packet	X	X	X	X
1-inch gauze bandage roll or compress	X	X	X	X
2-inch gauze bandage roll or compress	X	X	X	X
4-inch gauze bandage roll or compress	X	X	X	X
2-inch square sterile gauze pads	X	X	X	X
4-inch square sterile gauze pads	X	X	X	X
Sterile surgical pads suitable for pressure dressings			X	X
Triangular bandages	X	X	X	X
Safety pins	X	X	X	X
Tweezers and scissors	X	X	X	X
*Additional equipment to be readily a	vailable, but	not necessa	arily in First	Aid Kit:
Cotton-tipped applicators			X	X
Forceps			X	X
Emesis basin			X	X
Flashlight			X	X
Magnifying glass			X	X
Portable oxygen and its related breathing equipment				X
Tongue depressors				X
Appropriate Record Forms	X	X	X	X
Up-to-date First Aid Textbook, Manual, or Equivalent	X	X	X	X

TRAINING ATTENDANCE ROSTER FIRST AID BASICS

First Aid (Basics) Training Includes:

- · General Requirements
- First Aid Kit Content
- Treating lacerations, abrasions, contusions, sprains and strains
- Treating amputations, broken bones,
- Treating shock, eye injuries, head injuries, back pain
- Treating heat or cold injury and burns

INSTRUCTOR:	<u>DATE:</u>	LOCATION:		
NAME (Please Print) FIRST - MI - LAST	SIGNATURI			
By signing below, I attest that I have attended the safe by the safety information, procedures, rules, regulat instructe	ety training for the topic indicat tions and/or company policy as ed.	ed, and will abide s presented and		

Name of Interpreter, if utilized: _____

PROGRAM OVERVIEW

GENERAL SAFETY AWARENESS PROGRAM

REGULATORY STANDARD: OSHA General Duty Clause

INTRODUCTION

This program assists in establishing clear company goals and objectives for safety. It provides for the identification, evaluation and mitigation of safety hazards. It establishes employee training requirements and details general work rules, recordkeeping, emergency evacuation planning, audits and inspections and records retention.

TRAINING

Recommended training for an overview of workplace hazards.

ACTIVITIES

- Ensure the workplace is maintained free of a hazard to which employees of the employer were exposed
- · Inspect the workplace for hazards that are likely to cause death or serious physical harm
- · Ensure processes are in place to correct hazards

FORMS

- · General Safety Rules
- New Employee Safety Orientation Training
- Training Attendance Roster
- First Aid Kit Supply List (if included)

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- 1. Purpose
- 2. Scope
- 3. Responsibilities
- 4. Procedure
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GENERAL SAFETY AWARENESS PROGRAM

- 1. **Purpose.** This document provides a written general safety program for the company. This program is designed to establish clear company goals and objectives and will be communicated to all employees.
- 2. Scope. Applies to all employees at company facilities and sites.

3. Responsibilities

- 3.1 Management
 - 3.1.1 Identify and evaluate any safety hazards.
 - 3.1.2 Prioritize and address safety hazards based on risk level.
 - 3.1.3 Provide reasonable solutions to reduce or eliminate recognized safety hazards.
 - 3.1.4 Enforce federal, state and company safety rules and regulations in the workplace.
- 3.2 Employees
 - 3.2.1 Report safety concerns and hazards to your Supervisor.
 - 3.2.2 Participate in the resolution of the recognized safety hazards, as needed or required.
 - 3.2.3 Conduct their work activities in a safe manner.
 - 3.2.4 Abide by all the safety rules and regulation established by the company.
 - 3.2.5 Assist in maintaining their work area in a clean and neat condition.

4. Procedure

- 4.1 General Work Rules
 - 4.1.1 General Duty Clause
 - 4.1.1.1 OSHA's general duty clause states that companies must provide a place of employment that is free from recognized hazards.
 - 4.1.1.2 Each employee is responsible to comply with the standards and regulations that are applicable to their work activities.

4.1.2 Housekeeping

- 4.1.2.1 Every safety management program includes standards for general housekeeping. Housekeeping ensures that materials and contaminants do not accumulate and cause hazards to employee safety and health.
- 4.1.2.2 Workplaces will be cleaned on a regular basis.
- 4.1.2.3 Restrooms will be kept in a sanitary condition.
- 4.1.2.4 Materials will be stored in designated areas and not allowed to accumulate in places where employee safety could be at risk (i.e. aisles, corridors, stairwells, near exits, around machinery or equipment where employees work, etc.).
- 4.1.2.5 Tools and equipment will be stored in their appropriate places.
- 4.1.2.6 Chemicals will be handled according to their instructions. Spills or leaks will be cleaned up immediately and prevented from reoccurring.
- 4.1.2.7 Protective equipment will be used, as needed or required.
- 4.2 Written Standard Operating Procedures
 - 4.2.1 Job Hazard Analysis (Identifying Hazards) Each job task will be reviewed for safety hazards. Recognized safety hazards will be prioritized and addressed based on their risk level.
 - 4.2.2 Written Procedures
 - 4.2.2.1 Develop written procedures outlining the steps to take to reduce or eliminate recognized safety hazards. These procedures must identify when the use of personal protective equipment (PPE) is necessary.
 - 4.2.2.2 All companies must have:
 - 4.2.2.2.1 Emergency Evacuation and Fire Prevention Programs (written if >10 employees).
 - 4.2.2.2.2 Hazard Communication Program in workplaces where chemicals are used or stored.
 - 4.2.2.3 Written procedures are required if there are exposures to:
 - 4.2.2.3.1 Blood or bloodborne pathogens
 - 4.2.2.3.2 Hazardous chemical exposures

4.2.2.3.3	Confined spaces
4.2.2.3.4	Control of hazardous energy (Lock-out/Tag-Out)
4.2.2.3.5	Live electrical energy (>50 volts)
4.2.2.3.6	Noise levels >85 dBa
4.2.2.3.7	Laboratories
4.2.2.3.8	Forklifts
4.2.2.3.9	PPE required activities
4.2.2.3.10	Physical hazards
4.2.2.3.11	Radiation
4.2.2.3.12	Respiratory hazards
4.2.2.3.13	Shipping and handling of hazardous materials
4.2.2.3.14	Lasers (>Class 2)

- 4.3 Recordkeeping (Accident and Incident Investigation and Reporting)
 - 4.3.1 Incidents are work-related activities that cause concern for the health or safety of employees. All accidents and injuries (and work-related illnesses) are considered incidents.
 - 4.3.2 Reporting of incidents is required for many companies. Specific information about incidents must be identified and recorded on specific OSHA forms.
 - 4.3.3 Investigation may be required to determine some information that is required to be reported.
 - 4.3.4 Exemptions from Recordkeeping exist for some industries in general and for employers with fewer than 10 employees. For a full listing of exempted industries, see the OSHA website at <u>www.OSHA.gov</u>, or reference the listing in the OSHA Recordkeeping Exemption Listing form associated with this program.
- 4.4 Emergency Evacuation Planning
 - 4.4.1 All companies must have a program for emergency evacuation of their employees.
 - 4.4.2 Companies with more than 10 employees must have this information in writing.

- 4.4.3 Companies should post their evacuation routes to assist employees and others during an evacuation situation.
- 4.4.4 A review of the emergency action program must occur for every employee when the program is developed, upon initial assignment or new hire, when the employee's responsibilities under the program change and whenever the program is changed.
- 4.4.5 Any employees that have specific duties and requirements under the program (i.e. assisting others, locking sensitive information, area searchers or wardens, etc.) must be specifically trained in their duties and responsibilities.
- 4.5 Hazard Communication
 - 4.5.1 Every employee exposed or potentially exposed to hazardous chemicals in the workplace must be trained and informed of the hazards of those chemicals and the measures to be used to protect themselves from exposure. This training must occur initially and whenever changes to hazards in the workplace occur.
 - 4.5.2 Safety Data Sheets are required for all hazardous chemicals or mixtures used or stored in the workplace.
 - 4.5.3 A hazardous chemical inventory list must be maintained at the workplace (either one master listing or individual area listings) that list the hazardous materials by name (as it appears on the SDS) the manufacturer's name and phone number and any "common names" that the company may call the product (if they are different than the SDS name).
 - 4.5.4 A written program must be present in the workplace describing how the requirements of the regulation are implemented.
 - 4.5.5 All hazardous chemicals must have labels indicating the name, manufacturer and hazards of the hazardous components of the product.
- 4.6 Electrical Safety
 - 4.6.1 Any exposure greater than 50 volts requires electrical safety training and information be provided to employees. Employees with such exposure require the knowledge to understand the magnitude of the hazard they are exposed to and the measures needed to prevent injury from such exposure.
 - 4.6.2 All electrical installations and equipment must meet the installation and maintenance requirements under the National Electrical Code.
 - 4.6.2.3 Companies must ensure that electrical service panel boxes and equipment shutoffs are clear and unobstructed at all times for use during an emergency.

- 4.6.2.4 Electrical service panel boxes must have covers and those covers must remain in the closed position when the panel is not being accessed.
- 4.6.2.5 Electrical sources and outlets within 3 feet of any water source (such as a sink or drinking fountain) must be GFCI (Ground Fault Circuit Interrupt) protected.
- 4.7 Audits and Inspections
 - 4.7.1 Safety audits are formal reviews of employee activities, workplace processes and systems, and documentation. Audits normally use pre-established or written protocols or inspection reports to assure that the written procedures and process flows indicate what the employees are supposed to do, and that employees are following the procedures as written. Audits will normally have a final written summary report of the non-conformances that is presented to management. Each finding or non-conformance will have corrective actions assigned by management to correct the deficiency in the system.
 - 4.7.2 Inspections are informal reviews of employee activities, workplace processes, systems and documentation. Inspections may use pre-established written checklists, or may be even less-formal. The checklists are normally in a yes/no format that indicates whether or not the activity or process is compliant with what is required. Inspection findings are generally discussed with area supervisors or management, and the retention of the checklist (to assure that the items have been corrected before the next inspection) is normally the only documentation maintained.
 - 4.7.3 Some regulations require that procedures or activities be inspected, and that the inspection documentation be retained for a specified period of time. However, inspection reports are generally kept only until all action items are addressed or they are superseded by subsequent inspection reports.
- 4.8 Safety Committee
 - 4.8.1 Some states require safety committees if companies have more than 20 employees. It is generally recommended that any company with more than 20 employees establish a safety committee.
 - 4.8.2 Committees should meet at least quarterly and be comprised of at least 3 employees. A member of management and/or the safety officer may serve as additional members of the committee. The committee chairperson should not be a member of management or the company Safety Officer.
 - 4.8.3 Safety committees should discuss safety concerns at the company. They may be charged with performing area inspections, injury report reviews and investigations, training, or other safety-related duties that are appropriate to the business needs of the company.

4.9 Records Retention

- 4.9.1 Training Records are maintained until they are superseded by new training.
- 4.9.2 Audit Reports are kept for 5 years or until all findings are corrected, whichever is longer.
- 4.9.3 Inspection Reports are kept until all findings are corrected, the reports are superceded by new reports, or for a duration specified by a specific regulation, whichever is longer.
- 4.9.4 OSHA 300 logs and associated Injury and Illness Records are kept for 5 years.
- 4.9.5 Certain hazardous chemical exposure records (e.g. cancer causing agents, benzene, asbestos, and mercury) and biological exposure records (e.g. needle stick injuries of contaminated blood or body fluids) are kept for the duration of employment plus 30 years.
- 4.9.6 Other safety records are generally kept only until the actions that are required to be taken are complete.

5. Safety Information

5.1 <u>Ventilation</u>

- 5.1.1 General building ventilation systems are usually adequate to remove particulate matter and circulate fresh air throughout the building. Ventilation concerns are generally caused by:
 - 5.1.1.3 faulty filters in fresh air ducts
 - 5.1.1.4 corridors leading from outside areas (where dust and particulate matter can be drawn into the building)
 - 5.1.1.5 enclosed rooms where several printers or copiers are located in a small space (due to paper dust and/or toner dust being generated).
- 5.2 <u>Lighting</u>. The role of proper lighting is to provide a safe, comfortable and efficient visual environment. The following safe lighting criteria will be used to evaluate lighting conditions in office areas.
 - 5.2.1 Bare light sources will not be placed in the visual working field of any employee. Light sources will be properly shielded in these instances.
 - 5.2.2 The luminance and reflectance of surfaces of furnishings, shades, louvers, acoustic screens, will be considered to reduce their reflectance.
 - 5.2.3 Windows will be covered where appropriate.
 - 5.2.4 Wall surface colors and degree of reflectance will be appropriate to the work area.

- 5.2.5 Furniture should be arranged so that the luminaire is beside rather than in front of the operator. Light will then be directed across the work surface rather than into the worker's eyes.
- 5.3 <u>Eye Strain</u>. Adjusting the screen for the minimum amount of glare and best contrast will reduce the amount of eyestrain our employees' experience.
 - 5.3.1 <u>Monitor/VDT problems</u>. Correct placement of the VDT can relieve stress on the neck and shoulders. Adjust the monitor so screens can be read with the head up and facing forward (at about eye level). Employees with bifocals should be able to read without tilting their head. Distance is key in that employees should not have to move to focus.
 - 5.3.2 <u>Glare and contrast</u>. The two major sources of eye strain from working with a VDT are glare and poor contrast. Most offices have diffused overhead lighting to reduce screen glare, but glare from windows or other light sources, like lamps, should be shielded. Blinds can be closed to reduce light glare. Desks and work areas can be repositioned to reduce glare, or the brightness and contrast controls on a VDT can be adjusted.
 - 5.3.3 <u>Minimizing Eye Strain</u>. Reading from a VDT for hours at a time can be very hard on the eyes. The characters on a VDT screen are not as sharp as print on paper--they are almost always a little bit fuzzy. They are also always moving, and even though they may not move enough to notice, they move enough to make focusing difficult. Employees should be encouraged to take micro breaks or switch to other non-computer based tasks to reduce eye strain.
 - 5.3.4 <u>Supervisor involvement</u>. Encourage employees to have their eyes examined annually--more often if they are having vision problems or if their eyes feel tired at the end of the day. Even when VDT work does not cause a vision problem, the strain of reading from a monitor for long periods will make it difficult for employees to continue ignoring uncorrected or undercorrected vision problems they might already have.
- 5.4 <u>Ergonomic Improvements</u>. Ergonomic improvements can dramatically improve worker safety and productivity. Employees are most likely to work efficiently and accurately when they do not have to strain. Supervisors should be given adequate training in recognition and control of ergonomic improvements.
 - 5.4.1 <u>Problem recognition</u>. Supervisors should know the symptoms of Cumulative Trauma Disorders (CTD) and recognize when the stress involved in a particular job has the potential for contributing to a CTD. Make sure employees are working in the best way possible.

- 5.4.2 <u>Cumulative trauma disorders</u>. The most common CTDs are *Tendinitis* (inflammation of a tendon, usually at the wrist or elbow), *Carpal Tunnel Syndrome (CTS)* (caused by pressure on the nerve in the wrist) symptoms include numbness, difficulty holding objects and restricted movement), and *lower back problems* (strains caused improper lifting, or improper seating or poor work station design).
- 5.4.3 <u>Data entry</u>. Data entry is probably the biggest contributor to CTS. With the fingers resting on the home keys of the keyboard, and shoulders relaxed, the employee's wrists and forearms should be in a straight line and more or less parallel to the floor. Surface or chair height adjustments may help (so employees type or write with body erect with feet flat on the floor.
 - 5.3.3.1 The edge of the seat should not contact the back of the knees. Arm rests and keyboard wrist rests can be provided to relieve the pressure on the upper body. Footrests can assist in relieving strain on the back. Keyboard placement or copy stands, and telephone headsets may improve working postures. Back supports or lumbar supports on chairs can help prevent strain. Repetitive force and lifting can be minimized to prevent injury, or frequent breaks can be offered. Employees should be encouraged to take "stretch breaks" even if only for a minute or two.
- 5.3.4 <u>Supervisor involvement</u>. Make changes slowly, one at a time, and follow up on the effects. Observation and open communication with employees are our two most valuable tools for reducing the risks of ergonomic disorders in the workplace. If an employee has symptoms of a CTD, encourage him or her to get medical attention and work with the employee to find out if changes should be made in the job design.
- 5.4 <u>Disciplinary Actions for Willful Unsafe Acts</u>. Employees who willfully endanger themselves or the safety of their co-workers will be subject to the disciplinary action procedures stipulated by company policy or the Employee Handbook.

6. Training and Information

- 6.1 Employee Orientation and General Safety Training
 - 6.1.1 All new employees should be provided with a general safety orientation upon initial assignment. This orientation will include:
 - 6.1.1.1 A review of the employee responsibilities with regard to workplace safety and an overview of the general safety workplace rules.
 - 6.1.1.2 The hazards that may be encountered in the workplace.
 - 6.1.1.3 The process for reporting hazards, accidents, injuries and nearmisses.

- 6.1.1.4 It is additionally recommended that the orientation include information on office safety and ergonomics.
- 6.1.2 Employees who transfer or change jobs within the company will be provided with work area specific training in the hazards they may encounter.

7. Definitions

- Ø SDS Safety Data Sheets.
- *CTD* Cumulative Trauma Disorder is a medical condition caused by repetitive forces or motion.
- Ø CTS Carpal Tunnel Syndrome is a medical disease that affects the nerves in the wrist.
- Ø *VDT* Visual Display Terminals like computer monitoring equipment.
GENERAL SAFETY RULES

The company establishes the following safety rules as General Safety Rules for all departments/sections:

- Never operate any machine or equipment unless you are authorized and trained to do so. Obtain full instructions and training from your Supervisor before operating an unfamiliar machine.
- Do not operate defective equipment or broken hand tools. Report them to your Supervisor immediately. Frayed or damaged electrical cords should be replaced.
- Never start on any hazardous job without being completely familiar with the safety techniques that apply to it. Check with your Supervisor if in doubt.
- Make sure all safety attachments are in place and properly adjusted before operating any machine.
- Do not operate any machine or equipment at unsafe speeds. Shut off equipment that is not in use.
- Wear all protective garments and equipment necessary to be safe on the job. Wear proper shoes; sandals or other open-toed or thin-soled shoes should not be worn.
- Do not wear loose, flowing clothing or long hair while operating moving machinery.
- . Never repair or adjust any machine or equipment unless you are specifically authorized to do so by your Supervisor or specifically trained to do so.
- Never oil, clean, repair, or adjust any machine while it is in motion.
- Never repair or adjust any electrically driven machine without specific Lock-Out/Tag-Out training.
- Put tools and equipment away when they are not in use.
- Do not lift items that are too bulky or too heavy to be handled by one person. Ask for assistance.
- . Keep all aisles, stairways, and exits clear of materials, storage, equipment, and spillage.
- Do not place equipment and materials so as to block emergency exit routes, fireboxes, sprinkler shutoffs, machine or electrical control panels, or fire extinguishers.
- Stack all materials neatly and make sure piles are stable.
- . Keep your work area, machinery and all company facilities that you use clean and neat.
- Do not participate in horseplay, or tease or otherwise distract fellow workers. Do not run on company premises - always walk.
- Power-truck operators must be properly trained and licensed to operate the vehicle.
- Filing cabinets, desks, storage cabinets, and other storage devices should have drawers closed when not in use to prevent tripping hazards.
- Extension cords are temporary measures only and should not replace permanent wiring. Cords should be placed so that they are flush to the ground and do not present a tripping hazard. Electrical outlets should be properly used and never overloaded.
- Burned out light bulbs should be replaced immediately.
- Never take chances. If you're unsure, you're unsafe!

NEW EMPLOYEE SAFETY ORIENTATION TRAINING LIST					
Employee's Name:		Date assigned:	Department:		
Jo	b Title:				
Supervisor's Name:		Date of Review:	Signature:		
<u>Ins</u>	Instructions to Supervisor: Check all boxes that apply. Review the duty requirements of the new				
CIII		EMPLOYEE SIGNATURE		TRAINER	
	Accident Penerting Procedures		DAIL	MAINEN	
	Rack Safety				
	Bloodborne Pathogens Exposure				
H	Burn Safety				
H	Chemical Safety Awareness				
H	Compressed Gas Safety				
H	Confined Spaces Awareness				
	Crane and Sling Safety				
	Disciplinary Actions for Unsafe Acts				
	Electrical Safety Awareness				
h	Emergency Action Plan				
	Eve and Face Protection				
h	Fall Protection Awareness				
	Fire Extinguisher				
h	Fire Prevention				
	Flammable/Combustible Liquids				
	Food/Beverage Consumption on Duty				
	Forklift Safety Awareness				
	Hand & Power Tool Safety				
	Hazard Communication				
	Hazard Markings				
	Hazard Signage				
	Hearing Conservation				
	Heat Stress Issues				
	Housekeeping Requirements				
	Job Hazard Analysis Awareness				
	Lock Out Tag Out Awareness				
	Machine Guarding Awareness				
	New Products Safety				
	OSHA Recordkeeping				
	Personal Protective Equipment				
	Respiratory Protection				
	Restricted Areas				
	Slips, Trips, and Falls Safety				
	Smoking Restrictions				
	Spill Prevention and Control				
	Violent Acts				
	Waste Disposal Procedures				
	Welding Safety				

TRAINING ATTENDANCE ROSTER GENERAL SAFETY

Topic:

•				
INSTRUCTOR:	<u>DATE:</u>	LOCATION:		
NAME (Please Print)	9			
FIRST - MI - LAST	3	IGNATORE		
By signing below, I attest that I have	By signing below, I attest that I have attended the safety training for the topic indicated, and will abide by			
the safety mornation, procedures, n		iny policy as presented and instructed		

Name of Interpreter, if utilized: _____

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

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- 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

Ø 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.

HAND AND PORTABLE POWER TOOL GUARDING AND SAFETY REQUIREMENTS

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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.

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- 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
- o 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.
 - Server 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.
 - \cdot 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.

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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).
 - o Know the manufacturers instructions.
 - \circ Hold the tool in the operating position for at least 30 seconds.
 - o 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.
 - S 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.
 - S 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.
 - $\circ~$ 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:	DATE:	LOCATION:		
NAME (Please Print) FIRST - MI - LAST	SIGNATURE			
Ry signing below 1 attest that I have attended the safe	ty training for the topic indicate	ad and will abide by		
the safety information, procedures, rules, regulations a	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: _

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
- As needed:
 - **§** Michigan Specific Information
 - Minnesota Specific Information
 - **§** Rhode Island Specific Information

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- 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.
 - 3.1.8 Some State OSHA Programs have additional requirements (including Michigan, Minnesota, Rhode Island, etc.).
- 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 work, 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 (Annual training required in some states):
 - 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

- Ø 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
- Ø 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.
- Ø 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)	Common Name (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: _____

TRAINING ATTENDANCE ROSTER HAZARD COMMUNICATION				
Hazard Communication Training Includes:				
General Requirements and Right To Know/Un	derstand			
Types and Format of Chemical Labels including	ng GHS format			
Chemical Hazard Categories and Hazards				
SDS overview	· SDS overview			
Chemical Spill Response				
Exposure Incident Reporting				
<u>INSTRUCTOR:</u>	<u>DATE:</u>	LOCATION:		
NAME (Please Print)	SIGNATURE			
By signing below, I attest that I have attended the safe	ty training for the topic indi	cated, and will abide by		
the safety information, procedures, rules, regulations a	and/or company policy as p	resented and instructed		

Name of Interpreter, if utilized:

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: _____

PROGRAM OVERVIEW

JOB HAZARD ANALYSIS (JHA) SAFETY PROGRAM

REGULATORY STANDARD: 29 CFR §1910.132-138

INTRODUCTION

Provides an overview of the process for evaluating job hazards, analyzing the risks associated with tasks and activities in the workplace, and determining the control measures for reducing or eliminating identified risks.

TRAINING

Recommended for most workplaces.

ACTIVITIES

- Ensure hazards of tasks and activities are evaluated and controlled.
- Where required, implement protective equipment and procedures

FORMS

- JHA Form
- JHA Process Examples
- Training Attendance Roster

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JOB HAZARD ANALYSIS (JHA) SAFETY PROGRAM

- 1. **Purpose.** A job hazard analysis, simply put, is a method to identify existing and/or potential hazards of a job. Each task undergoing a JHA will be studied and each step of the job recorded, so that the entire job process is considered. Hazards (or potential hazards) are then more easily identified, and the best way to reduce or eliminate those hazards can be determined.
- 2. Scope. Applies to any area where a JHA process may be required (such as the use of highly hazardous chemicals above established quantity thresholds). Job hazard analysis techniques can also be performed in areas where job or task activities may require an evaluation of hazard potential and a determination of protective controls prior to the implementation of Personal Protective Equipment Requirements.

3. Responsibilities

- 3.1 Management
 - 3.1.1 Ensure that all jobs and tasks have been evaluated and hazards appropriately addressed. Where possible, hazards will be controlled before the use of PPE is implemented. Controls include:
 - 3.1.1.1 Elimination of a product or process that generates the hazard
 - 3.1.1.2 Substitution of a non-hazardous or less-hazardous material or chemical
 - 3.1.1.3 Engineering methods such as ventilation or guarding
 - 3.1.1.4 Administrative controls such as procedures or task rotation
 - 3.1.2 Select the appropriate controls to reduce or eliminate hazards, based on the types of tasks and activities performed.
 - 3.1.3 Write operating procedures for tasks or activities that require controls, or include control requirements in existing work and task procedures.
 - 3.1.4 Maintain control measures and equipment.
 - 3.1.5 Once control measures have been implemented, review and assess at the one year interval the needs for continued (or additional) use of control measures and their requirements. These assessments should be documented as proof that controls are or are not required for certain tasks or activities. Documentation in the procedure is adequate to fulfill this need, however any specific testing or monitoring results will need to be documented and maintained separately.

3.2 Employees

3.2.1 Follow established procedures

- 3.2.2 Assist in providing assessment and documentation of job hazards, as needed or required
- 3.3 JHA Team
 - 3.3.1 Verify the JHA steps and the viability of recommendations
 - 3.3.2 Select those corrective actions that will be implemented
 - 3.3.3 Track corrective actions to assure they are completed
 - 3.3.4 Ensure corrective actions provide the appropriate level of safety and that they do not create additional hazards
 - 3.3.5 Determine if procedures, checklists, training, etc require updating based on the recommended corrective actions.

4. Procedure

- 4.1 Hazard Evaluation and Determination
 - 4.1.1 Ensure JHA's have been completed. The JHA should be documented, to facilitate a later review of the process or activity hazards.
 - 4.1.1.1 JHA's shall be performed in all areas to identify hazards that require the use of hazard controls (including PPE requirements). Priority may be given to areas or tasks with higher injury/risk potential.
 - 4.1.1.2 A JHA or other hazard assessment must be completed before any non-routine task (task not evaluated as part of the current hazard assessments) is started and before changes are made to operating procedures and when incidents result from inadequate controls or PPE.
- 4.2 JHA Process General
 - 4.2.1 Prioritize readily hazardous processes and perform a JHA on these tasks and activities first.
 - 4.2.2 Form a team to look at the process (at least two people, frequently more, depending upon the hazards and risks)
 - 4.2.3 JHA's are conducted by listing the job steps, determining the hazards presented by each step and determining control methods (including PPE) to use to eliminate or reduce the hazard levels.
 - 4.2.4 Corrective actions may be required or recommended, based on the type of task or activities evaluated.

5. Safety Information

- 5.1 JHA Prioritization
 - 5.1.1 JHA's assist in providing early recognition of hazards that may cause an injury or occupational illness, or environmental harm. Although all jobs and tasks should eventually undergo a JHA, any higher hazard jobs should be prioritized to reduce the likelihood of injury or illness.
 - 5.1.1.1 Jobs where injuries have previously occurred, or have a high frequency of injury, illness, environmental harm or equipment damage, should be first priority.
 - 5.1.1.2 Second priority would be jobs that have a high potential for accidents due to the frequent use of hazardous materials or equipment, or those that have a history of "near misses".
 - 5.1.1.3 Third priority would be new jobs or tasks that involve the introduction of new equipment, tools, chemicals or materials, or that have changes in the process of how to perform the job or have regulations that guide the method in which the job is performed.
- 5.2 JHA Team
 - 5.2.1 JHA's should be a team effort and normally involve more than one person. However, in a small business setting, two or three people may be sufficient to perform a JHA.
 - 5.2.2 The most experienced person who performs that job should be on the team. This person has the most familiarity with the job, how it is performed, and any hazards associated with the job. Other operators, who may perform the task differently, may also be included, as well as any new operators, who can bring a "fresh set of eyes", and a different perspective, to the JHA.
 - 5.2.3 Supervisors are usually included, as they may know of potential workplace changes that can affect the job, and can usually provide any funding needed for JHA recommended changes.
 - 5.2.4 Maintenance staff that service and repair any equipment should be included.
 - 5.2.5 If available, any technical experts (safety, engineers, environmental specialists, etc) may be included, as they generally have understanding and knowledge of any regulations that may affect the job, and understand how they are implemented.

5.3 Where to Perform a JHA

- 5.3.1 At the workplace, where the job is performed is the best place to perform a JHA. By doing the JHA on-site, no steps will be overlooked, and the workplace conditions (lighting, noise, layout, etc.) can be assessed. Recommendations for changes may be more readily implemented, as well. If possible, the team should watch the job being performed so they can understand the sequence of steps and the significance of each step (what is done, in what order, and why).
- 5.3.2 JHA's can be more limited in scope, as well, and jobs can be reviewed verbally. This is usually done only when the job cannot be performed first, it is not a "routine" job, if it is one part of a larger job sequence, or the workplace conditions are not conducive to observing the job (i.e. dark area, or small workspace).
- 5.3.3 JHA's can also be performed using video surveillance. By using video, there can be better visibility for team members and the task can be viewed many times, slowed down, or even paused for analyzing hazards. However, employees are frequently uncomfortable being videotaped and the video tape is only from one angle, so some hazards may be overlooked.
- 5.4 Conducting the JHA
 - 5.4.1 List the Basic Job Steps Nearly every job can be broken down into steps. Each step should be observed by the JHA team. The steps should be discussed, so that everyone understands them, and the reasons the steps are included. The steps should be listed in order of performance. (The JHA form at the end of this module can be used for this, or another form of your choosing.) Action words should be used to describe the steps and they should be numbered sequentially.
 - 5.4.1.1 There are typically between 3 and 12 steps in a JHA. If there are fewer, then the scope of the JHA is too broad and some hazards may be overlooked. If there are more than 12 steps then the JHA is too detailed, and the JHA team may get "bogged down" with more detail than they need.
 - 5.4.2 Determine the Potential Hazards Hazards are then determined by asking questions such as:
 - 5.4.2.1 Can the employee receive a strain or sprain due to bending, twisting, lifting while performing any of the steps?
 - 5.4.2.2 Can the employee receive a crushing injury (be caught in, on or between equipment)?
 - 5.4.2.3 Can the employee receive a burn or irritation due to contact with chemicals, heat, or other physical or biological hazards?
 - 5.4.2.4 Could a chemical or material release occur?

- 5.4.3 List the Existing and Potential Hazards.
- 5.4.4 Make Recommendations to Reduce/Eliminate or Control Hazards Where possible, eliminate the hazard, or substitute a non-hazardous material or condition that will achieve quality results. Where hazards can not be eliminated, provide engineering controls (barriers, interlocks, tools, etc.) that can reduce or eliminate hazardous conditions. Administrative control (procedures, training, limit the exposure time, etc) should be applied to the task where elimination and engineering are not feasible. When all the previous controls can not provide hazard reduction, personal protective equipment (PPE) should be considered (i.e., gloves, respirators, specialized clothing, etc.). PPE should be the last control considered. Remember that PPE frequently requires specialized training, cleaning, or maintenance, and records may need to be kept.
 - 5.4.4.1 Make recommendations for every hazard identified, beginning with the first hazard listed. You can make several recommendations for one hazard, bearing in mind that one or more may not be feasible, cost effective or timely. Number each accordance recommendation in with its hazard. Recommendations should be specific (what type of gloves, what specific material will be substituted, etc.). Existing controls may already control or eliminate some hazards, be sure to list these, so they do not get changed and make the hazardous situation worse. Where needed, consider that some regulations require specific types of controls to be put in place, and if they are prescribed they may not be the most feasible or economical to implement.

6. Training and Information

Where needed or required, employees participating in JHA's may require training in the techniques used.

7. Definitions

- *JHA* A method used to determine the hazards of a particular task or activity.
- Personal Protective Equipment (PPE) Devices worn to protect employees from potential hazards encountered in the workplace.
- Hazard Assessment An evaluation of the workplace to determine if hazards are present (or are likely to be present) which necessitate the use of PPE.

JOB HAZARD ANALYSIS				PAGE OF		
JOB OR TASK BEING EVALUATED: DATE OF AN				LYSIS:		
JOB HAZARD ANALYSIS TEAM PARTICIPANTS:						
STEPS:	POTENTIAL OR EXISTING HAZARDS:	CORRECTIVE ACTION RECOMMENDATIONS:				

JOB HAZARD ANALYSIS PROCESS EXAMPLE

INTRODUCTION:

A job hazard analysis, simply put, is a method to identify existing and/or potential hazards of a job. Each task undergoing a JHA will be studied and each step of the job recorded, so that the entire job process is considered. Hazards (or potential hazards) are then more easily identified, and the best way to reduce or eliminate those hazards can be determined.

PRIORITIZATION:

A JHA can assist in providing early recognition of hazards that may cause an injury or occupational illness, or environmental harm. Although all jobs and tasks should eventually undergo a JHA, any higher hazard jobs should be prioritized to reduce the likelihood of injury or illness.

Jobs where injuries have previously occurred, or have a high frequency of injury, illness, environmental harm or equipment damage, should be first priority.

Second priority would be jobs that have a high potential for accidents due to the frequent use of hazardous materials or equipment, or those that have a history of "near misses".

Third priority would be new jobs or tasks that involve the introduction of new equipment, tools, chemicals or materials, or that have changes in the process of how to perform the job or have regulations that guide the method in which the job is performed.

WHO DOES A JHA?

JHA's should be a team effort and normally involve more than one person. However, in a small business setting, two or three people may be sufficient to perform a JHA.

The most experienced person who performs that job should be on the team. This person has the most familiarity with the job, how it is performed, and any hazards associated with the job. Other operators, who may perform the task differently, may also be included, as well as any new operators, who can bring a "fresh set of eyes", and a different perspective, to the JHA.

Supervisors are usually included, as they may know of potential workplace changes that can affect the job, and can usually provide any funded needed for JHA recommended changes.

Maintenance staff that service and repair any equipment should be included.

If available, any technical experts (safety, engineers, environmental specialists, etc) may be included, as they generally have understanding and knowledge of any regulations that may affect the job, and understand how they are implemented.

WHERE TO PERFORM A JHA:

At the workplace, where the job is performed is the best place to perform a JHA. By doing the JHA on-site, not steps will be overlooked, and the workplace conditions (lighting, noise, layout, etc.) can be assessed. Recommendations for changes may be more readily implemented, as well. If possible, the team should watch the job being performed so they can understand the sequence of steps and the significance of each step (what is done, in what order, and why).

JHA's can be more limited in scope, as well, and jobs can be reviewed verbally. This is usually done only when the job cannot be performed first, it is not a "routine" job, if it is one part of a larger job sequence, or the workplace conditions are not conducive to observing the job (i.e. dark area, or small workspace).

JHA's can also be performed using video surveillance. By using video, there can be better visibility for team members and the task can be viewed many times, slowed down, or even paused for analyzing hazards. However, employees are frequently uncomfortable being videotaped and the video tape is only from one angle, so some hazards may be overlooked.

CONDUCTING THE JHA - List the Basic Job Steps

Nearly every job can be broken down into steps. Each step should be observed by the JHA team. The steps should be discussed, so that everyone understands them, and the reasons the steps are included. The steps should be listed in order of performance. (The JHA form at the end of this module can be used for this, or another form of your choosing.) Action words should be used to describe the steps and they should be numbered sequentially.

Determine the Potential Hazards:

Hazards are then determined by asking questions such as:

- 1. Can the operator receive a strain or sprain due to bending, twisting, and lifting while performing any of the steps?
- 2. Can the operator receive a crushing injury being caught in, on or between equipment?
- 3. Can they receive a burn or irritation due to contact with chemicals, heat, or other physical or biological hazards?
- 4. Could a chemical or material release occur?
EXAMPLE 2 - Swing Grinder. The following picture details a swing grinding operation.



Based on what is shown in the picture, follow the steps to complete a JHA. The first step is to list the tasks involved in the swing grinding operation.

- 1. Remove any potential fire hazards and combustibles from the area
- 2. Inspect the grinder to assure it is in good operating condition
- 3. Assure all castings and materials to be ground are accessible, but out of way of any direct hazards
- 4. Double check the grinding wheel to assure is it the proper size and strength to perform the operation
- 5. Put on Personal Protective Equipment
- 6. Turn grinder on
- 7. Grind castings

The second step of the JHA is to ask the questions about existing or potential hazards. Noise, Fire, body strain, burns, vibration, dust, fumes, light, flying particles are just a few hazards that are apparent from the picture. Each of these hazards is associated with one or more of the steps involved in the swing grinding operation. They should be listed and numbered accordingly:

- 1a) Body strain from lifting/twisting
- 1b) Potential fire if materials are not moved
- 2a) Operator getting caught in a pinch point
- 2b) Body strain from lifting grinder
- 2c) Dust or particles in eye from previous activity or unkempt workplace
- 2d) Potential for breaking grinding wheel if inspection is not performed or performed improperly
- 3a) Wasted energy to start and stop grinder if materials are not accessible
- 3b) Potential fire or tripping hazard if materials are in the way.
- 4a) Potential to break grinding wheel if improper size or type for operation
- 5a) Hearing loss from excessive noise
- 5b) Burns from grinding dust and sparks
- 5c) Body strain from lifting, movement while grinding and/or vibration
- 5d) Dust or particles in eye
- 6a) Potential for breaking grinding wheel if inspection is not performed or performed improperly
- 7a) Body strain from lifting/twisting
- 7b) Potential fire if materials are not moved
- 7c) Operator getting caught in a pinch point, or laceration from contact with grinding surface
- 7d) Dust or particles in eye from previous activity or unkempt workplace
- 7e) Potential for breaking grinding wheel if inspection is not performed or performed improperly
- 7f) Wasted energy to start and stop grinder if materials are not accessible
- 7g) Potential fire or tripping hazard if materials are in the way.
- 7h) Hearing loss from excessive noise
- 7i) Burns from grinding dust and sparks
- 7j) Body strain from lifting, movement while grinding and/or vibration
- 7k) Dust or particles in eye

The next step is to make the recommendations to reduce or eliminate the existing or potential hazards:

- 1a1) Assure operator is trained in how to lift/twist without injury
- 1a2) Assure operator has the strength/capability of operating the grinder
- 1b1) Have a checklist or other system to assure materials are moved to their correct distance or location. The operator must check off the items on the list prior to beginning the operation.
- 1b2) Assure that materials to be ground are in non-combustible containers
- 2a1) Assure that pinch points are properly guarded.
- 2a2) Assure that operator is aware of where pinch points are.
- 2b1) Assure operator is trained in how to lift/twist without injury
- 2b2) Assure operator has the strength/capability of operating the grinder
- 2c1) Assure proper eye protection (full face shield or welding mask)
- 2c2) Assure housekeeping is performed after each grinding operation, as needed between grinding operations and as needed during grinding operations to reduce or eliminate dust from area.
- 2d1) Assure operator or other appropriate individual performs appropriate inspection(s) prior to each grinding operation or weekly, whichever is more frequent. (The inspection can be part of the checklist in 1b1.)
- 3a1) Have a checklist or other system to assure materials are moved to their correct distance or location. The operator must check off the items on the list prior to beginning the operation.
- 3b1) Have a checklist or other system to assure materials are moved to their correct distance or location. The operator must check off the items on the list prior to beginning the operation.
- 3b2) Assure appropriate fire protection systems are in place and operational.
- 4a1) Assure operator or other appropriate individual performs appropriate inspection(s) prior to each grinding operation or weekly, whichever is more frequent. (The inspection can be part of the checklist in 1b1.)
- 4a2) Assure proper eye protection (full face shield or welding mask)
- 5a1) Assure proper hearing protection is used by operator and any other exposed people.
- 5a2) Assure noise levels require hearing protection
- 5a3) Assure grinder is operating at appropriate velocity and parts are secured to reduce vibration, noise and potential for breakage.
- 5b1) Assure proper clothing (long pants, long sleeve shirts, leggings and/or protective sleeves, and gloves) are worn during operation.
- 5c1) Assure operator is trained in how to lift/twist without injury
- 5c2) Assure operator has the strength/capability of operating the grinder
- 5c3) Assure grinder is operating at appropriate velocity and parts are properly secured to reduce vibration.
- 5d1) Assure proper eye protection (full face shield or welding mask)
- 5d2) Assure housekeeping is performed after each grinding operation, as needed between grinding operations and as needed during grinding operations to reduce or eliminate dust from area.

6a1) Assure operator or other appropriate individual performs appropriate inspection(s) prior to each grinding operation

- 6a2) Assure grinder is operating at appropriate velocity and parts are properly secured to reduce vibration.
- 7a1) Assure operator is trained in how to lift/twist without injury
- 7a2) Assure operator has the strength/capability of operating the grinder
- 7b1) Use a checklist before operations to assure materials are moved to their correct distance or location.
- 7b2) Assure appropriate fire protection systems are in place and operational.
- 7b3) Assure housekeeping is performed after and as needed between grinding operations to reduce or eliminate dust from area.
- 7c1) Assure that pinch points are properly guarded.
- 7c2) Assure that operator is aware of where pinch points are.
- 7c3) Assure that protective clothing (long pants, long sleeve shirts, leggings and/or protective sleeves, and gloves) are worn.
- 7d1) Assure proper eye protection (full face shield or welding mask)
- 7d2) Assure housekeeping is performed after and as needed between grinding operations and to reduce or eliminate dust from area.
- 7e1) Assure operator or other appropriate individual performs appropriate inspection(s) prior to each grinding operation
- 7e2) Assure grinder is operating at appropriate velocity and parts are secured to reduce vibration, noise and potential for breakage.
- 7e3) Assure grinding wheel is properly guarded.
- 7e4) Assure materials are properly secured during grinding.
- 7f1) Use a checklist before operations to assure materials are moved to their correct distance or location.
- 7g1) Use a checklist before operations to assure materials are moved to their correct distance or location.
- 7h1) Assure proper hearing protection is used by operator and any other exposed people.
- 7h2) Assure noise levels require hearing protection
- 7h3) Assure grinder is operating at appropriate velocity and parts are secured to reduce vibration, noise and potential for breakage.
- 7i1) Assure that proper protective clothing (long pants, long sleeve shirts, leggings and/or protective sleeves, and gloves) are worn.
- 7i2) Assure proper eye protection (full face shield or welding mask)
- 7i3) Assure housekeeping is performed after and as needed between grinding operations and to reduce or eliminate dust from area.
- 7i4) Assure proper eye protection (full face shield or welding mask)
- 7j1) Assure grinder is operating at appropriate velocity and parts are secured to reduce vibration, noise and potential for breakage.
- 7j2) Assure operator is trained in how to lift/twist without injury
- 7j3) Assure operator has the strength/capability of operating the grinder
- 7k1) Assure proper eye protection (full face shield or welding mask)
- 7k2) Assure housekeeping is performed after and as needed between grinding operations to reduce or eliminate dust from area.
- All this information should be placed on the JHA form in the appropriate space. The end result will look like this:

	EXAMPLE 2 - Swing Grinder:			
	JOB HAZARD ANALYSIS			PAGE 1 OF 5
JOB OR TASK BEING EVALUA	ATED:		DATE OF ANA	LYSIS:
	Swing Grinding Operation		July	, 2004
JOB HAZARD ANALYSIS TEAN	M PARTICIPANTS: Jim Grinder, Jane Doe			
STEP(S)	POTENTIAL OR EXISTING HAZARD(S)	CC	RRECTIVE AC	TION ONS
1. Remove any potential fire hazards and combustibles from the area	1a) Body strain from lifting/twisting	1a1) Assure opera injury	ator is trained in how	w to lift/twist without
		1a2) Assure operating the grine	ator has the strengt	h/capability of
	1b) Potential fire if materials are not moved	1b1) Have a chec are moved to their operator must che beginning the ope	klist or other systen correct distance of ck off the items on ration.	n to assure materials r location. The the list prior to
		1b2) Assure that r combustible conta	naterials to be grou iiners	nd are in non-
2. Inspect the grinder to assure it is in good operating condition	2a) Operator getting caught in a pinch point	2a1) Assure that p	pinch points are pro	perly guarded.
		2a2) Assure that o are.	operator is aware of	where pinch points
	2b) Body strain from lifting grinder	2b1) Assure opera injury	ator is trained in how	w to lift/twist without
		2b2) Assure operating the grine	ator has the strengt	h/capability of
	2c) Dust or particles in eye from previous activity or unkempt workplace	2c1) Assure prope welding mask)	er eye protection (fu	Ill face shield or
		2c2) Assure house grinding operation operations and as reduce or eliminat	ekeeping is perform , as needed betwee needed during grir e dust from area.	ned after each en grinding nding operations to

JOB HAZARD A	NALYSIS
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PAGE 2 OF 5

STEP(S)	POTENTIAL OR EXISTING HAZARD(S)	CORRECTIVE ACTION RECOMMENDATIONS
	2d) Potential for breaking grinding wheel if inspection is not performed or performed improperly	2d1) Assure operator or other appropriate individual performs appropriate inspection(s) prior to each grinding operation or weekly, whichever is more frequent. (The inspection can be part of the checklist in 1b1.)
3. Assure all castings and materials to be ground are accessible, but out of way of any direct hazards	3a) Wasted energy to start and stop grinder if materials are not accessible	3a1) Have a checklist or other system to assure materials are moved to their correct distance or location. The operator must check off the items on the list prior to beginning the operation.
	3b) Potential fire or tripping hazard if materials are in the way.	3b1) Have a checklist or other system to assure materials are moved to their correct distance or location. The operator must check off the items on the list prior to beginning the operation.
		3b2) Assure appropriate fire protection systems are in place and operational.
4. Double check the grinding wheel to assure is it the proper size and strength to perform the operation	4a) Potential to break grinding wheel if improper size or type for operation	4a1) Assure operator or other appropriate individual performs appropriate inspection(s) prior to each grinding operation or weekly, whichever is more frequent. (The inspection can be part of the checklist in 1b1.)
		4a2) Assure proper eye protection (full face shield or welding mask)
5. Put on Personal Protective Equipment	5a) Hearing loss from excessive noise	5a1) Assure proper hearing protection is used by operator and any other exposed people.
		5a2) Assure noise levels require hearing protection
		5a3) Assure grinder is operating at appropriate velocity and parts are properly secured to reduce vibration, noise and potential for breakage.
	5b) Burns from grinding dust and sparks	5b1) Assure proper clothing (long pants, long sleeve shirts, leggings and/or protective sleeves, and gloves) are worn during operation.

	JOB HAZARD ANALYSIS	PAGE 3 OF 5
STEP(S)	POTENTIAL OR EXISTING HAZARD(S)	CORRECTIVE ACTION RECOMMENDATIONS
	5c) Body strain from lifting, movement while grinding and/or vibration	5c1) Assure operator is trained in how to lift/twist without injury
		5c2) Assure operator has the strength/capability of operating the grinder
		5c3) Assure grinder is operating at appropriate velocity and parts are properly secured to reduce vibration.
	5d) Dust or particles in eye	5d1) Assure proper eye protection (full face shield or welding mask)
		5d2) Assure housekeeping is performed after each grinding operation, as needed between grinding operations and as needed during grinding operations to reduce or eliminate dust from area.
6. Turn grinder on	6a) Potential for breaking grinding wheel if inspection is not performed or performed improperly	6a1) Assure operator or other appropriate individual performs appropriate inspection(s) prior to each grinding operation or weekly, whichever is more frequent. (The inspection can be part of the checklist in 1b1.)
		6a2) Assure grinder is operating at appropriate velocity and parts are properly secured to reduce vibration.
7. Grind castings	7a) Body strain from lifting/twisting	7a1) Assure operator is trained in how to lift/twist without injury
		7a2) Assure operator has the strength/capability of operating the grinder
	7b) Potential fire if materials are not moved	7b1) Have a checklist or other system to assure materials are moved to their correct distance or location. The operator must check off the items on the list prior to beginning the operation.
		7b2) Assure appropriate fire protection systems are in place and operational.
		7b3) Assure housekeeping is performed after each grinding operation, as needed between grinding operations and as needed during grinding operations to reduce or eliminate dust from area.

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JOB HAZARD A	NALYSIS
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PAGE 4 OF 5

STEP(S)	POTENTIAL OR EXISTING HAZARD(S)	CORRECTIVE ACTION RECOMMENDATIONS
	7c) Operator getting caught in a pinch point, or laceration from contact with grinding surface	7c1) Assure that pinch points are properly guarded.
		7c2) Assure that operator is aware of where pinch points are.
		7c3) Assure that proper protective clothing (long pants, long sleeve shirts, leggings and/or protective sleeves, and gloves) are worn during operation.
	7d) Dust or particles in eye from previous activity or unkempt workplace	7d1) Assure proper eye protection (full face shield or welding mask)
		7d2) Assure housekeeping is performed after each grinding operation, as needed between grinding operations and as needed during grinding operations to reduce or eliminate dust from area.
	7e) Potential for breaking grinding wheel if inspection is not performed or performed improperly	7e1) Assure operator or other appropriate individual performs appropriate inspection(s) prior to each grinding operation or weekly, whichever is more frequent. (The inspection can be part of the checklist in 1b1.)
		7e2) Assure grinder is operating at appropriate velocity and parts are properly secured to reduce vibration, noise and potential for breakage.
		7e3) Assure grinding wheel is properly guarded.
		7e4) Assure materials are properly secured during grinding.
	7f) Wasted energy to start and stop grinder if materials are not accessible	7f1) Have a checklist or other system to assure materials are moved to their correct distance or location. The operator must check off the items on the list prior to beginning the operation.
	7g) Potential fire or tripping hazard if materials are in the way.	7g1) Have a checklist or other system to assure materials are moved to their correct distance or location. The operator must check off the items on the list prior to beginning the operation.

JOB HAZARD ANALYSIS

PAGE 5 OF 5

STEP(S)	POTENTIAL OR EXISTING HAZARD(S)	CORRECTIVE ACTION RECOMMENDATIONS
	7h) Hearing loss from excessive noise	7h1) Assure proper hearing protection is used by operator and any other exposed people.
		7h2) Assure noise levels require hearing protection
		7h3) Assure grinder is operating at appropriate velocity and parts are properly secured to reduce vibration, noise and potential for breakage.
	7i) Burns from grinding dust and sparks	7i1) Assure that proper protective clothing (long pants, long sleeve shirts, leggings and/or protective sleeves, and gloves) are worn during operation.
		7i2) Assure proper eye protection (full face shield or welding mask)
		7i3) Assure housekeeping is performed after each grinding operation, as needed between grinding operations and as needed during grinding operations to reduce or eliminate dust from area.
		7i4) Assure proper eye protection (full face shield or welding mask)
	7j) Body strain from lifting, movement while grinding and/or vibration	7j1) Assure grinder is operating at appropriate velocity and parts are properly secured to reduce vibration, noise and potential for breakage.
		7j2) Assure operator is trained in how to lift/twist without injury
		7j3) Assure operator has the strength/capability of operating the grinder
	7k) Dust or particles in eye	7k1) Assure proper eye protection (full face shield or welding mask)
		7k2) Assure housekeeping is performed after each grinding operation, as needed between grinding operations and as needed during grinding operations to reduce or eliminate dust from area.

JHA COMPLETION:

Supervisors or managers, and/or the JHA team are responsible for:

- 1. Verifying the JHA steps and the viability of recommendations
- 2. Selecting those corrective actions that will be implemented
- 3. Tracking corrective actions to assure they are completed
- 4. Ensuring corrective actions provide the appropriate level of safety and that they do not create additional hazards
- 5. Determining if procedures, checklists, training, etc require updating based on the recommended corrective actions.

SUMMARY:

JHA's can be useful tools, especially when hazards may not be easily identifiable. By performing JHA's, a company can improve their safety performance, potentially reduce operating costs and keep employees involved in the safety process.

TRAINING ATTEND JOB HAZARD	ANCE ROSTER ANALYSIS	
Job Hazard Analysis Training Includes:		
What is a JHA		
 What is required and who performs the JH 	IA	
General process		
The forms used		
 Eliminating or reducing hazards 		
INSTRUCTOR:	<u>DATE:</u>	LOCATION:
NAME (Please Print) FIRST - MI - LAST	SIGNATURE	E
by the safety information, procedures, rules, regulat instruct	ions and/or company policy as ed	presented and

Name of Interpreter, if utilized: ____

PROGRAM OVERVIEW

LOCK-OUT/TAG-OUT (LO/TO) SAFETY PROGRAM

REGULATORY STANDARD - OSHA - 29 CFR 1910.147

INTRODUCTION

OSHA's Control of Hazardous Energy (Lockout/Tagout) standard covers working on or around equipment where employees may be exposed to the unexpected energization, motion or start-up of machines or equipment. This program details the minimum performance requirements and has provisions for employee training, group lockout/tagout, inspection certifications, protective materials & hardware, application & test of controls, and procedures for shift or personnel changes. The standard does not apply to cord and plug connected electrical equipment where the plug is under the control of the servicing mechanic, or hot tap (i.e. welding) operations.

TRAINING

- Training will be provided to Authorized, Affected and Other employees, based on their exposure to LO/TO and Hazardous Energy Control procedures
- Training is required upon initial assignment, when changes in job responsibilities occur, when there are changes to the process or equipment, or whenever deficiencies or deviations from established procedures are noted
- When tag-out only systems are used, all employees will be trained on the limitations of tags

ACTIVITIES

- · Evaluate the potential hazards of specific equipment
- Establish a written program and procedures for each piece or type of equipment
- · Communicate with contractors, as required
- Train employees (3 levels: Authorized, Affected and Other)
- Verify Lock/Tag application process
- Evaluate all new equipment (or changes to old equipment) and processes for LO/TO capability
- · Perform annual procedure inspections, as required

FORMS

- LOTO Absent Employee Lock Removal Procedure
- LOTO Determination of Applicability
- LOTO Equipment List
- LOTO Program Assessment
- · LOTO Written Procedure (template)
- LOTO Written Procedure Inspection Certificate
- LOTO Written Procedure Acknowledgement
- Training Attendance Roster

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LOCK-OUT/TAG-OUT (LO/TO) SAFETY PROGRAM

- 1. **Purpose.** This program covers working on or around equipment where employees may be exposed to the unexpected energization, motion or start-up of machines or equipment. This program assists in compliance with 29CFR1910.147 regulations for the control of hazardous energy.
- 2. Scope. This standard applies to all locations and covers the servicing and/or maintenance of machines and other equipment and processes. The standard does not apply only to cord and plug connected electrical equipment where the plug is under the control of the servicing mechanic, or hot tap (i.e. welding) operations. Stand alone equipment like generators and automobiles have lockout restrictions that apply.

3. Responsibilities

3.1 Management

- 3.1.1 Evaluate the potential hazards of specific equipment
- 3.1.2 Establish a written program
- 3.1.3 Establish written LO/TO procedures for each individual or group of similar machines in place
- 3.1.4 Communicate with contractors regarding the company's Lock-Out/Tag-Out Program and exposures
- 3.1.5 Train employees (3 levels: Authorized, Affected and Other)
- 3.1.6 Verify Lock/Tag application process
- 3.1.7 Account for new equipment and processes
- 3.1.8 Establish group lockout process as needed
- 3.1.9 Implement Lock Removal for Absent Employee procedures
- 3.1.10 Perform annual and periodic inspections, as required
- 3.1.11 Account for shift and personnel changes, as needed or required

4. Procedure

- 4.1 <u>Written Program</u>
 - 4.1.1 This document serves as the written lock-out/tag-out program for the company. Before performing service or maintenance on equipment or machinery where energy or motion could release and cause injury, the energy sources must be isolated and "locked out".

4.2 Written Procedures

- 4.2.1 Up-to-date written procedures are in place and followed for the isolation of an energy source (including locking, blocking and tagging). Procedures must be written for both routine and non-routine service and maintenance work, and including production work such as set-up, cleaning and un-jamming. These procedures must include sufficient detail to provide each employee with control over all hazardous energy they may be exposed to (such as electrical, mechanical, gravitational, hydraulic, pneumatic, chemical, thermal, or other hazards). A template-form is included with this program to assist in writing the required procedures.
- 4.2.2 Informing contractors of company devices and procedures
- 4.2.3 Informing employees about differences in the contractor's devices and procedures and about company procedures
- 4.2.4 Assuring procedures are in place to maintain LO/TO requirements during shift changes or personnel changes to maintain the integrity and continuity of LO/TO requirements
- 4.3 Application of Locks and Tags or Other Energy Control Devices
 - 4.3.1 <u>The Six Steps of LO/TO</u>
 - 4.3.1.1 Preparation for Shutdown the Authorized Employee must have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled and the methods and means to control the energy. This knowledge should include a review of the written procedure.
 - 4.3.1.2 Machine or Equipment Shutdown Shutdown machine or equipment using the established written procedures (normal operating procedures) after notifying Affected Employees in the area of the shut-down.
 - 4.3.1.3 Machine or Equipment Isolation Locate and isolate all energy sources.
 - 4.3.1.4 Hazardous Energy Control Device Application Apply or affix Lock and Tag (or other device) so that equipment is held in a "safe" or "off" position.
 - 4.3.1.5 Stored Energy Relieve, disconnect or restrain all energy sources so that they are made safe.
 - 4.3.1.6 Verification of Isolation The authorized employee will verify the isolation and de-energizing of the machine or equipment by trying to activate the machine.

4.3.2 Tags without Locks

- 4.3.2.1 Tags will accompany LO/TO specific locks at all times, unless:
 - 4.3.2.1.1 If locks cannot be used, tags must be supplemented by other means to ensure an equivalent level of safety to that of a lock application (Example: removing a control switch, circuit breaker or valve handle).
 - 4.3.2.1.2 Where locks are not used, the supplemental means (and its written procedure) must be reviewed with each authorized and affected employee at least annually.
 - 4.3.2.1.3 When equipment is being taken out of service (i.e. abandoned in place or no longer used), non-LO/TO locks and tags will be used. The tag will contain the words "Out of Service" and an appropriate description.

4.3.3 Other Energy Control Devices

- 4.3.3.1 Blocks, chains, wedges, adapter pins, self-locking fasteners may be used to block machines or equipment from unexpected energization. (For example: A block may be used to wedge open a mechanical power press during tool changes to prevent the machine from cycling).
- 4.3.3.2 Automotive repair personnel should consult with the vehicle service guidelines to determine if removal of the ignition key is sufficient to ensure energy hazards are controlled, or if batteries must be disconnected during diagnostic or repair activities.
- 4.3.3.3 Generators and similar stand alone equipment must have the energy sources controlled, through disconnect of the spark plug or lock out of the controls for the engine.

4.3.4 Release from LO/TO or Restoring Equipment to Service

- 4.3.4.1 Check the work area to ensure that tools and other non-essential items have been removed and that the machine or equipment components are intact.
- 4.3.4.2 Check the area to ensure that employees have been safely moved away from the work area.
- 4.3.4.3 Verify that the machine controls are in neutral or off.
- 4.3.4.4 Remove the lock-out/tag-out device(s).
- 4.3.4.5 Reenergize the machine or equipment. NOTE: the removal of some forms of blocking may require reenergizing of the machine before safe removal.

4.3.4.6 Notify area employees that the servicing or maintenance work is completed and the machine is ready for use.

4.4 Lock Removal for Absentee Employee Process

- 4.4.1 Each LO/TO device shall be removed from the energy isolating device by the employee who applied the device.
- 4.4.2 When the Authorized Employee who applied the LO/TO device is not available to removed it, the device may be removed under the direction of a single designated person at the company provided this designated person follow specific procedures. At a minimum, these include:
 - 4.4.2.1 Verification that the Authorized Employee who applied the device is not at the facility
 - 4.4.2.2 Efforts are made to contact the Authorized Employee to inform them that their LO/TO device has been removed
 - 4.4.2.3 There are methods followed to ensure the Authorized Employee knows their device was removed BEFORE they resume work
- 4.4.3 The Safety Officer will either serve as the responsible person or management will designate an individual to serve in this capacity.
- 4.4.4 To assist in the consistent application of the absentee lock removal process, a form has been provided with this program.
- 4.5 Tag Application
 - 4.5.1 Use only company approved LO/TO locks, tags, blocks and other devices
 - 4.5.1.1 Attach tags with nylon cable ties or an equivalent strength material
 - 4.5.1.2 Attach tags to the locks
 - 4.5.1.3 Tags will contain the following information:
 - 4.5.1.3.1 Name of equipment being secured
 - 4.5.1.3.2 Name of person securing
 - 4.5.1.3.3 Date of application (securing)
 - 4.5.1.3.4 How to contact person securing
 - 4.5.1.3.5 Reason for being secured (e.g. taken out of service, repair, etc.)

- 4.5.1.3.6 A statement prohibiting removal or tampering with the lock or tag
- 4.5.2 Tags must include a statement such as "Do Not Start", "Do Not Open", "Do Not Close", "Do Not Energize" or "Do Not Operate".

4.6 New Equipment Design or Major Modifications to Existing Equipment

- 4.6.1 Machinery must be able to be locked out or made lockable when they are:
 - 4.6.1.1 Replaced or undergo major repairs
 - 4.6.1.2 Renovated or modified
 - 4.6.1.3 Purchased and installed
- 4.6.2 New equipment installations must be capable of being locked out as an integral part of the machine (i.e. without the use of chains, etc.).

4.7 Group Lock-Outs

- 4.7.1 Group Lock outs will incorporate the use of a group lockout device. Devices may include a lockable container (like a strong-box) to hold the process lock keys and tag-out records for large jobs and long duration work, or a multiple lock adapter (that will not release until all locks have been removed) for single machines that require more than one lock. These group devices are used as controls where there are complex situations involving many different people who all require the machine or process to be locked before they work on it.
 - 4.7.1.1 One "Primary Authorized Person" will be assigned, and vested as responsible, for all the locks on the project and assuring continuity of energy control for the entire group.
- 4.7.2 A master locking device provides protection from the main energy source. The "Primary Authorized Person" is solely responsible for applying and removing this device.
- 4.7.3 Each authorized employee involved in the group lockout must affix a personal lockout or tag-out device to the machine, equipment or into group lockbox or onto the device when their work begins and remove it when their work is completed.

4.8 <u>Shift/Personnel Change Procedures</u>

4.8.1 Specific procedures to account for shift or personnel changes must ensure the continuity of LO/TO protection, and must include a provision for the transfer of devices between off-going and on-coming employees. This will minimize exposure to hazards from the unexpected energization or start-up of the machine or equipment or the release of stored energy.

4.9 Required Periodic Inspections

- 4.9.1 Inspect LO/TO procedures and actual lock-outs (at least annually) to assure they meet regulatory requirements. The inspection is led by a "LO/TO Authorized" employee who has been trained in that procedure. This person must be someone other than the one performing the lock-out. The inspections requirements include:
 - 4.9.1.1 Checking training records to verify people have been trained to the level necessary.
 - 4.9.1.2 That the procedure document was reviewed within the last calendar year. Reviews must ensure the procedures are adequate, understandable and being followed.
 - 4.9.1.3 All employees authorized to use that procedure participate in this review (group meeting reviews are acceptable).
 - 4.9.1.4 Field check the actual lock-out to assure the equipment is being locked out properly. The inspector and the person locking the equipment are required to participate, at a minimum.
 - 4.9.1.5 Asking operators how they would lock/tag equipment, and verify by demonstration.
 - 4.9.1.6 Note and correct any deficiencies.
 - 4.9.1.7 Document this assessment using the inspection certificate form provided with this program, or an equivalent record. Both the inspector and the person performing the LO/TO must sign the assessment certificate.
- 4.9.2 If the procedure is found lacking or deficient, it must be revised and all employees who would use that procedure must be retrained to the new procedure before servicing or maintaining that equipment.
- 4.9.3 Each procedure that is used for "normal" or "routine" lock-outs must be reviewed at least once per year. "Non-routine" lock-outs must have a procedure reviewed before the procedure is used, if it hasn't been used in the last calendar year.

5. Safety Information

- 5.1 Specific Requirements for Electrical LO/TO with Greater than 50 volts to Ground:
 - 5.1.1 Only an "Electrical Qualified Person" (Electricians or persons specifically trained by an electrician) can operate the equipment or otherwise verify that the equipment can not be restarted.
 - 5.1.2 Only an "Electrical Qualified Person" can use test equipment to test the circuit elements and electrical parts of the equipment, including exposure to back-feed or inadvertently induced voltage.

- 5.1.3 Only an "Electrical Qualified Person" can conduct tests and inspections to verify that the equipment can be safely re-energized.
- 5.1.4 Locks must be accompanied by tags
- 5.1.5 Safe de-energizing and re-energizing procedures must be determined before service or maintenance is performed and approved in writing by an "Electrical Qualified Person" before the actual LO/TO is performed.
- 5.2 Records
 - 5.2.1 Training records will be maintained. Training records include:
 - 5.2.1.1 The name of the employee trained
 - 5.2.1.2 The date of training
 - 5.2.1.3 As needed, information on the specific procedure to which the employee is trained (i.e. a non-routine task).
 - 5.2.2 Copies of training materials (i.e. the specific written procedure and signed inspection certificate) used for non-routine tasks must be kept.

6. Training and Information

- 6.1 LO/TO Training General
 - 6.1.1 Training will be provided to Authorized, Affected and Other employees, based on their exposure to LO/TO and Hazardous Energy Control procedures.
 - 6.1.2 Training is required:
 - 6.1.2.1 upon initial assignment
 - 6.1.2.2 when changes in job responsibilities occur
 - 6.1.2.3 when new equipment is brought into an area
 - 6.1.2.4 when new processes that present new hazards are introduced
 - 6.1.2.5 when there are changes in the hazardous energy control procedures
 - 6.1.2.6 when deficiencies or deviations from established procedures are noted
 - 6.1.2.7 when an inspection or review reveals deficiencies
 - 6.1.3 There are three specific levels of training required:

- 6.1.3.1 Authorized employees will receive formal LO/TO training:
 - 6.1.3.1.1 The training should also be supplemented by localized application, procedure or equipment-specific instruction, which includes written procedures and hands-on instruction in LO/TO application.
 - 6.1.3.1.2 The training should enable the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace and the methods and means necessary for energy isolation and control.
- 6.1.3.2 Affected employees will receive a mid-range level of training to inform them of the purpose of the program, and their limitations and responsibilities under the program.
- 6.1.3.3 Training for Other employees can be verbally or by another method, and will inform employees about the procedure and program, about the prohibition relating to attempts to start machines or equipment that are locked out or tagged out, and in recognizing LO/TO devices and their purpose.
- 6.1.4 All levels of training should include information on who serves as the responsible person designated for the Lock Removal for Absent Employee process.
- 6.2 Tag-Out Only Systems
 - 6.2.1 When tag-out only systems are used, all employees will be trained on the limitations of tags, including:
 - 6.2.1.1 Tags are warning devices only and do not provide physical restraint
 - 6.2.1.2 Tags may not be removed, except by the person who applied it.
 - 6.2.1.3 Tags must be legible and understandable by all employees
 - 6.2.1.4 Tags must stand up to the conditions where they are applied (wet, cold, heat, etc.)
 - 6.2.1.5 Tags must be secure so they do not inadvertently fall off or get removed
 - 6.2.1.6 Tags may evoke a "false sense of security" and must not be used as a sole-system when locks or other devices can be applied.
- 6.3 Re-training
 - 6.3.1 Re-training is required for both Authorized and Affected Employees when:

- 6.3.1.1 Employee lock-outs are performed incorrectly, reviews reveal deficiencies, or when there is reason to believe there are inadequacies in the employees knowledge of the energy control procedures
- 6.3.1.2 A change in job assignment requires re-training
- 6.3.1.3 Modifications to equipment occur which affects the LO/TO procedure or present a new hazard
- 6.3.1.4 A procedure has been changed since the last time the employee performed LO/TO on that equipment or machinery.

7. Definitions

- Authorized Employee A person who locks-out or tags-out machines or equipment in order to perform servicing or maintenance (set up operators and tools changes).
- Ø Affected Employee A person whose job requires them to work in an area or operate machinery or equipment on which servicing or maintenance is being performed under lock-out or tag-out.
- Capable of Being Locked-Out An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which (or through which) a lock can be affixed, or it has a locking mechanism built into it. Other energy-isolating devices are "capable of being locked-out" if energy isolation can be achieved without the need to dismantle, rebuild or replace the isolating device, or permanently alter its capability.
- *Energized* Connected to an energy source or containing residual or stored energy
- LO/TO or Energy-Isolating Device A mechanical device that physically prevents the transmission or release of energy, including, but not limited to the following:
 - a manually-operated electrical circuit breaker, a disconnect switch, or a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, where no pole can be operated independently
 - a line valve
 - a block
 - any similar device used to block or isolate energy
 - Push buttons, selector switches and other control-circuit type devices are not energyisolating devices.
- *Energy source* Any source of mechanical, hydraulic, pneumatic, chemical, natural, thermal or other energy
- *Other employees* All persons who are or may be in an area when LO/TO procedures or devices may be utilized.
- *Primary Authorized Person* An authorized person with the primary responsibility for group lockout applications.

- **Ø** Qualified Familiar with the construction and operation of the equipment and the hazards involved.
- Servicing and/or Maintenance Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or un-jamming of machines or equipment and making adjustments or tool changes where the employee may be exposed to the **unexpected** energization or startup of the equipment, or a release of hazardous energy.

LOTO ABSENT EMPLOYEE LOCK REMOVAL PROCEDURE

______ is the single, designated person to contact when a lock or other device requires removal by someone other than the authorized employee who applied the device.

List the steps taken to verify that the absent employee is not at the facility:

List the steps taken to contact the absent employee (if different from above):

List the steps taken to ensure the absent employee knows their device has been removed (if different from above):

Completed by: _____

Date: _____

LOTO DETERMINATION OF APPLICABILITY									
Equipment	Designa	ation:			Loc	ation:			
Date Asses	sed:	Related Ope	erating Proc	edures Reviewe	d:	Related	d Maintenance Procedures	Reviewed	:
			⊐ Yes	□ No			🗆 Yes 🛛 🖸] No	
			LOCK O	UT TAG OUT ASS	ESSI		HECKLIST		
Is there a po	otential fo	or stored, resi	dual, or read	cumulation of ene	rgy a	fter shutc	down?	□ Yes *	🗖 No
Does the un	nit have m	nultiple energ	y sources th	at cannot be readi	ly ide	ntified an	nd isolated?	□ Yes *	🗖 No
The isolation	n and loc	k out of energ	gy sources v	vill not completely	deene	ergize or	deactivate the unit!	□ Yes *	🗖 No
The unit is r	not isolate	ed from its en	ergy source	and locked out du	ring s	ervicing	or maintenance!	Yes *	🗖 No
A single loc	kout devi	ce will not ac	hieve a lock	ed out condition!				□ Yes *	🗖 No
The lockout	device is	s not under th	e exclusive	control of an " Auth	norize	d Emplo	oyee"!	□ Yes *	🗖 No
The servicin	ng or maii	ntenance crea	ates hazards	s for other employe	es!			□ Yes *	🗖 No
Have accide	ents invol	ving unexpec	ted activatio	n/reenergization c	ccurr	ed during	g servicing?	□ Yes *	🗖 No
		*Written pro	cedures mu	st be developed	if any	"Yes" a	nswers have been given!		
ASSESSED	ENERG	Y SOURCES	: (indicate s	specific sources wi	th init	ials)			
Initials	Energ	gy Source	Magni	tude and Unit of	Meas	ure	Method to Dissipat	e or Restra	in
	Chemic	cal:							
	Hydrau	lic:							
	Pneum	atic:							
	Mechar	nical:							
	Electric	al:							
	Therma	al:							
	Radioa	ctive:							
	Kinetic:	:							
	Other:								
TYPES AND	D LOCAT	TIONS OF OF	PERATING C	CONTROLS: * Fur	ther I	Detailed	on Attachment: Yes D	No□	
Types of O	perating	Controls			Loc	ation on	Unit		
TYPES AND	D LOCAT	TIONS OF EN	IERGY ISOL	ATING DEVICE(S	5):* Fi	urther De	etailed on Attachment: Yes	s □ No□	
Types of Energy Isolating Devices Loca		ation(s)							
METHODS	TO VERI	FY ISOLATIO	ON OF THE	UNIT: * Furthe	r Det	ailed on	Attachment: Yes	No	
Verification	Method				Loc	ation(s)			

DIAGRAM OR PHOTOS OF UNIT:		Schematic/Blu	ue Print	Attached	?	🗆 Yes 🗆 No
WRITTEN PROCEDURES AUTHOR: To	be Develope	d by (date)	To be	Implemer	nted	by (date)
REMARKS						
_						
☐ Approved	<u>AUTH</u>	ORIZATION				
I acknowledge that I have conducted a Lo	ockout Tagou	t Assessment	of the e	quipment	or n	nachine named
above and have detailed the findings of th * Eurther detail	ne assessmer ed on attachr	nt on this form				
Name:		Signature:				
Title:		Date:			Tim	e:
						-
ASSESSMENT FORM RETEN	ITION INFOR	MATION		<u>A</u> 1	TAC	HMENTS
Permanent Retention File:	Location:			🗌 Ye	s	🗌 No
Date Filed:	Filed By:			*See	Follo	owing Pages

LOTO EQUIPMENT LIST

LO/TO equipment must be:

- Used for LO/TO only
- Identified (either through marking and labeling or training) as LO/TO devices
- Durable and capable of withstanding the environment and pressures applied to them
- Standardized (same color, unique shape, same size/type of print, etc.).
- Substantial in that locks may not be easily removable (without the use of tools or excessive force) and that tags must not be accidentally removed or fall off.
- Identifiable to the person who applied them, either by name or number system.

The locks/tags and other devices specified below are the **only** authorized LO/TO devices to be used at the company and SHALL NOT be used for locking equipment other than for LO/TO and Energy Control purposes.

LO/TO Equipment	Stock #
Personal Safety Padlock	
Tag (general) –laminated write on w/grease-pencil	
Tag (multi-part) - can be laminated with or without pictures - but wording may not be altered.	
Plastic Bag	
Tie Strap	
Multiple Lock Adapter (Scissor)	
Multiple Lock Hasp/Adapter	
High Voltage Tag (Specifically Trained Personnel Use ONLY)	
Safety Devices (circuit breakers & plastic covers etc.)	
Valves, Cords and Other Equipment	

Completed by: _____

Date: _____

LOTO WRITTEN PROCEDURE

LO/TO Procedure for Machinery Name or Type:

Purpose: This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energizing or start-up of the machine or equipment or release of stored energy could cause injury.

Specific Restrictions and Compliance Steps for the above named machine(s) are:

All employees are required to comply with the restrictions and limitations imposed upon them during the use of LO/TO. The authorized employees are required to perform the LO/TO in accordance with this procedure. All employees, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance shall not attempt to start, energize or use that machine or equipment.

Sequence of LO/TO

1.	Notify all affected employees that servicing or maintenance is required on a machine or equipment and that
	the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
	Names/Job Titles of affected employees and how to notify:

,	The types and magnitude of energy hazards, and methods to control them are listed.
	Check the type of energy hazards associated with this equipment or machine: Electrical Natural (Wind, Gravity, Etc.) Chemical Pneumatic Hydraulic Thermal Other Kinetic
	List the magnitude of the hazard if known (>50Volts, 500 lbs of force, etc.)
	List the devices that are used to control the energy hazards:

- If the machine or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.).
 List the location of the operating controls for the machine or equipment:
- 4. De-activate the energy source so that the machine or equipment is isolated from the energy source(s).
- 5. Lock out the energy source(s) with lock(s).
- 6. List the components that contain the energy (such as: capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam or water pressure, etc.)

and the methods to dissipate or restrain the energy (such as grounding, repositioning, blocking, bleeding down, etc) :

7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate. *CAUTION:* return operating control(s) to neutral or "off" position after verifying the isolation of the equipment.

Method of verifying the isolation of the equipment:

8. The machine or equipment is now locked out.

Restoring Equipment to Service

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken.

- 1. Check the machine or equipment and the immediate area around to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
- 2. Check the work area to ensure that all employees have been safely positioned or removed from the area.
- 3. Verify that the controls are in neutral.
- 4. Remove the lockout device(s) and reenergize the machine or equipment. NOTE: the removal of some forms of blocking may require reenergizing of the machine before safe removal.
- 5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

Completed by:

Date: _____

LOTO WRITTEN PROCEDURE INSPECTION CERTIFICATE

Company or Department Name:							
Internal Procedure number (if applicable):		Last Updated:					
Machinery/Equipment Name or Type:							
Persons trained as "Authorized" for this procedure:							
Name		Employ	Employee Identification Number				
 Preparation for Shutdown - knowledge of the type and magnitude of the hazardous energy Machine or Equipment Shutdown - performed using established procedure Machine or Equipment Isolation - all energy sources located and isolated Hazardous Energy Control Device Application - affixed to the energy isolation device by authorized individuals Stored Energy - all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained and otherwise rendered safe Verification of Isolation - authorized employee will verify the isolation and de-energizing of the machine or equipment has been accomplished. Verification: A field-check of the utilization of this procedure was performed on the following "Authorized" individuals (enter name) 							
and/or other employee identification):	and/or other employee identification):						
Name							
Authorization: This field check was performed by the following person authorized to use this procedure and not the person being field-checked:							
Name			Date				
Deficiencies noted during field-check (if any):							
Verification Statement: The inspected individuals demonstrated adequate knowledge of locking/tagging this piece of equipment. Any deficiencies noted above have been corrected and proper techniques have been verified.							
Signature of field-check Inspector:	ature of field-check Inspector: Signature of LO/TO Employee:						

LOTO WRITTEN PROCEDURE ACKNOWLEDGEMENT							
NAME OF MACHINE OR Procedure	Date Procedure Originally Written	Annual Review Date	Authorized Employee Signature				

TRAINING ATTENDANCE ROSTER LOCKOUT/TAG-OUT

Lookout/Togout (Authorizod) Troining Includeou
TOCKOUI/TAOOUT(AUMONZEO) TRAININO INCIUOES:
Loonoue ragout (radionzou) rianning moradoo.
Lockout/Tagout (Authorized) Training Includes:

- · Reasons for Lockout
- Types of Energy
- Materials and Equipment Requirements
- When LOTO Applies
- Written Procedures
- LOTO Process (Single and Group Lockouts)
- Lock Removal and Absentee Removal
- Contractors
- · Limitations of Tags

INSTRUCTOR:	DATE:	LOCATION:					
NAME (Please Print) FIRST - MI - LAST	SIGNATUR	E					
By signing below Lattest that Lhave attended the safe	aty training for the topic indicat	ed and will abide					
by signing below, ratest that rhave attended the safety training for the topic indicated, and will able by the safety information, procedures, rules, regulations and/or company policy as presented and							
instructed							

Name of Interpreter, if utilized: _

PROGRAM OVERVIEW

MARKING INDUSTRIAL HAZARDS SAFETY PROGRAM

REGULATORY STANDARD: OSHA - 29 CFR 1910.144 (Safety Color Codes) - 29 CFR 1910.145 (Signs and Tags)

INTRODUCTION: Many workplace injuries are the result of insufficient warning signs and color coding. Workplace hazards need to be marked to alert employees to the dangers that exist in a facility or area. Depending on the specific workplace situation, different regulations could apply. The OSHA Safety Color Coding System and criteria for the design and placement of signs and tags establish these requirements. The system also provides the criteria needed to help minimize injuries and to provide accident prevention information to affected workers.

TRAINING:

• Employees must understand the purpose, color codes and meaning of signs used in the workplace.

ACTIVITIES:

- Evaluate the facility to determine where safety signs and markings are required
- · Provide appropriate signs and markings as required
- Ensure employees are aware of the signs and their meanings
- Provide equipment, as needed, for employees to comply with the requirements.
- Color Identification:
 - Red will be the basic color for the identification of: Fire protection equipment and apparatus, Danger, & Stop.
 - · Yellow will be the basic color for designating caution and for marking physical hazards.
 - All signs will be furnished with rounded or blunt corners and will be free from sharp edges, burrs, splinters, or other sharp projections.

FORMS:

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- 7. Definitions

- 1. **Purpose.** The OSHA Safety Color Coding System and criteria for the design and placement of signs and tags establish requirements and the criteria needed to help minimize injuries and to provide accident prevention information to affected workers. The company will review and evaluate this safety program:
 - 1.1 On an annual basis and more frequently, as needed.
 - 1.2 When changes occur to 29 CFR 1910.
 - 1.3 When facility operational changes occur that require revision.
- 2. Scope. This program applies to all areas where safety signs and markings are required.

3. Responsibilities.

- 3.1 Management/Supervisors:
 - 3.1.1 Evaluate the facility to determine where safety signs and markings are required
 - 3.1.2 Provide appropriate signs and markings as required
 - 3.1.3 Ensure employees are aware of the signs and their meanings
 - 3.1.4 Provide equipment, as needed, for employees to comply with the requirements.
- 3.2 Employees:
 - 3.2.1 Adhere to and follow the requirements indicated by safety signs and markings.
- 3.3 Safety Officer (as needed or required):
 - 3.3.1 Assist in the development and implementation of this program

4. Procedure.

- 4.1 Color Identification:
 - 4.1.1 Red. Red will be the basic color for the identification of:
 - 4.1.1.1 Fire protection equipment and apparatus.

- 4.1.1.2 Danger. Safety cans or other portable containers of flammable liquids having a flash point at or below 80 F, table containers of flammable liquids (open cup tester), excluding shipping containers, will be painted red with some additional clearly visible identification either in the form of a yellow band around the can or the name of the contents conspicuously stenciled or painted on the can in yellow. Red lights will be provided at barricades and at temporary obstructions, as specified in ANSI Safety Code for Building Construction, A10.2-1944. Danger signs will be painted red.
- 4.1.1.3 Stop. Emergency stop bars on hazardous machines such as rubber mills, wire blocks, flat work irons, etc., will be red. Stop buttons or electrical switches which letters or other markings appear, used for emergency stopping of machinery will be red.
- 4.1.2 Yellow. Yellow will be the basic color for designating caution and for marking physical hazards such as: Striking against, stumbling, falling, tripping, and "caught in between."

5. Safety Information.

- 5.1 Accident Prevention Signs:
 - 5.1.1 The following specifications apply to the design, application, and use of signs or symbols intended to indicate and define specific hazards of a nature such that failure to designate them may lead to accidental injury to our workers, the public, or to property damage. The following specifications are intended to cover all safety signs utilized except those designed for streets, highways, railroads, and marine regulations. These specifications do not apply to plant bulletin boards or to safety posters.
 - 5.1.2 New and replaced signs. All new signs and replacements of old signs (on or after August 31, 1971), used will be in accordance with these specifications.
- 5.2 Classification of signs according to use:
 - 5.2.1 Danger signs.
 - 5.2.2 There will be no variation in the type of design of signs posted to warn of specific dangers and radiation hazards.
 - 5.2.3 All employees will be instructed that danger signs indicate immediate danger and that special precautions are necessary.
 - 5.2.4 Caution signs.
 - 5.2.5 Caution signs will be used only to warn against potential hazards or to caution against unsafe practices.
 - 5.2.6 All employees will be instructed that caution signs indicate a possible hazard against which proper precaution should be taken.

- 5.2.7 Safety instruction signs. Safety instruction signs will be used where there is a need for general instructions and suggestions relative to safety measures.
- 5.3 Sign Design and Features:
 - 5.3.1 All signs procured or used will be furnished with rounded or blunt corners and will be free from sharp edges, burrs, splinters, or other sharp projections. The ends or heads of bolts or other fastening devices will be located in such a way that they do not constitute a hazard.
 - 5.3.1.1 Danger signs.
 - 5.3.1.1.1 The colors red, black, and white will be those of opaque glossy samples (as specified in the "Fundamental Specification of Safety Colors for CIE Standard Source "C", American National Standard Z53.1-1967).
 - 5.3.1.2 Caution signs.
 - 5.3.1.2.1 Standard color of the background will be yellow; and the panel, black with yellow letters. Any letters used against the yellow background will be black. The colors will be those of opaque glossy samples as specified in Table 1 of American National Standard Z53.1-1967.
 - 5.3.1.3 Safety instruction signs. Standard color of the background will be white; and the panel, green with white letters. Any letters used against the white background will be black. The colors will be those of opaque glossy samples as specified in Table 1 of American National Standard, Z53.1-1967.
 - Slow-moving vehicle emblem. This emblem consists 5.3.1.3.1 of a fluorescent yellow-orange triangle with a dark red reflective border. The yellow-orange fluorescent triangle is a highly visible color for daylight exposure. The reflective border defines the shape of the fluorescent color in daylight and creates a hollow red triangle in the path of motor vehicle headlights at The emblem is intended as a unique niaht. identification for, and it will be used only on, vehicles which by design move slowly (25 m.p.h. or less) on the public roads. The emblem is not a clearance marker for wide machinery nor is it intended to replace required lighting or marking of slow-moving Neither the color film pattern and its vehicles. dimensions nor the backing will be altered to permit use of advertising or other markings. The material, location, mounting, etc., of the emblem will be in accordance with the American Society of Agricultural Engineers Emblem for Identifying Slow-Moving Vehicles, ASAE R276, 1967, or ASAE S276.2 (ANSI B114.1-1971).

5.3.1.3.2 Biological hazard signs. The biological hazard warning is used to signify the actual or potential presence of a biohazard and to identify equipment, containers, rooms, materials, experimental animals, or combinations thereof, which contain, or are contaminated with, viable hazardous agents. It this respect the term "biological hazard," or "biohazard," includes only those infectious agents presenting a risk or potential risk to the well-being of humans.

5.4 Sign wording:

- 5.4.1 Nature of wording. The wording of any sign used will be easily read and concise. All signs will contain sufficient information to be easily understood. The wording will be formed to make a positive, rather than negative suggestion and will be accurate in fact.
- 5.5 Accident Prevention Tags:
 - 5.5.1 The following specifications apply to the design, application, and use of tags intended to indicate and to identify hazardous conditions, provide a message to our employees with respect to hazardous conditions as set forth in this safety program, or to meet the specific tagging requirements of other OSHA regulatory standards such as the Control of Hazardous Energy Regulatory Standard (Lock-Out Tag-Out).
 - 5.5.2 Intended use. Tags will be used as a means to prevent accidental injury or illness to employees who are exposed to hazardous or potentially hazardous conditions, equipment or operations which are out of the ordinary, unexpected or not readily apparent. Tags will be used until such time as the identified hazard is eliminated or the hazardous operation is completed. Tags need not be used where signs, guarding or other positive means of protection are being used.
 - 5.5.3 General tag criteria. All required tags will meet the following criteria:
 - 5.5.3.1 Tags will contain a signal word and a major message.
 - 5.5.3.1.1 The signal word will be either "Danger," "Caution," or "Biological Hazard," "BIOHAZARD," or the biological hazard symbol.
 - 5.5.3.1.2 The major message will indicate the specific hazardous condition or the instruction to be communicated to the employee.
 - 5.5.3.1.3 The signal word will be readable at a minimum distance of five feet (1.52 m) or such greater distance as warranted by the hazard.
 - 5.5.3.1.4 The tag's major message will be presented in either pictograph, written text or both.
- 5.5.3.1.5 The signal word and the major message will be understandable to all employees who may be exposed to the identified hazard.
- 5.5.3.1.6 All employees will be informed as to the meaning of the various tags used throughout the workplace and what special precautions are necessary.
- 5.5.3.1.7 Tags will be affixed as close as safely possible to their respective hazards by a positive means such as string, wire, or adhesive that prevents their loss or unintentional removal.
- 5.5.3.2 Types of tags.
 - 5.5.3.2.1 Danger tags. Danger tags will be used in major hazard situations where an immediate hazard presents a threat of death or serious injury to employees. Danger tags will be used only in these situations.
- 5.5.3.3 Recommended Color Coding.
 - 5.5.3.3.1 "DANGER" Red, or predominantly red, with lettering or symbols in a contrasting color.
 - 5.5.3.3.2 Caution tags. Caution tags will be used in minor hazard situations where a non-immediate or potential hazard or unsafe practice presents a lesser threat of employee injury. Caution tags will be used only in these situations.
 - 5.5.3.3.2.1 "CAUTION" Yellow, or predominantly yellow, with lettering or symbols in a contrasting color.
 - 5.5.3.3.3 Warning tags. Warning tags may be used to represent a hazard level between "Caution" and "Danger," instead of the required "Caution" tag, provided that they have a signal word of "Warning," and an appropriate major message.
 - 5.5.3.3.3.1 "WARNING" Orange, or predominantly orange, with lettering or symbols in a contrasting color.

- 5.5.3.3.4 Biological hazard tags.
 - 5.5.3.3.4.1 Biological hazard tags will be used to identify the actual or potential presence of a biological hazard and to identify equipment, containers, rooms, experimental animals, or combinations thereof, that contain or are contaminated with hazardous biological agents.
 - 5.5.3.3.4.2 "BIOLOGICAL HAZARD" Fluorescent orange or orange-red, or predominantly so, with lettering or symbols in a contrasting color.
- 5.5.3.3.5 Other tags. Other tags may be used in addition to those indicated in this Safety program or in other situations where tags are required, provided that they do not detract from the impact or visibility of the signal word and major message of any required tag.

6. Training and Information.

- 6.1 The company will ensure that the purpose, color coding, and design of color codes and signs are understood by employees and that the knowledge and skills required for their safe application and usage are acquired by employees.
 - 6.1.1 All employees will be informed as to the meaning of the various color codes, signs and tags used throughout the workplace and what, if any, special precautions are necessary.
 - 6.1.2 Color codes, signs and tags must be legible and understandable by all employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective. Non-legible or missing color codes, signs, and tags will be reported to area Supervisors immediately.
 - 6.1.3 Color codes, signs and tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
 - 6.1.4 Information will be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or processes that present new color codes, signs, or tags, or when there is an accident resulting because of a color code, sign, or tag this is defaced or inaccurate.
 - 6.1.5 Additional information will also be provided 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 color codes, signs, or tags.

6.1.5.3 The information provided must reestablish employee proficiency and introduce new or revised color codes, signs or tags as necessary.

7. Definitions.

- **Ø** Biological hazard or BIOHAZARD Those infectious agents presenting a risk of death, injury or illness to employees.
- Major message That portion of a tag's inscription that is more specific than the signal word and that indicates the specific hazardous condition or the instruction to be communicated to the employee. Examples include: "High Voltage," "Close Clearance," "Do Not Start," or "Do Not Use" or a corresponding pictograph used with a written text or alone.
- Ø Pictograph A pictorial representation used to identify a hazardous condition or to convey a safety instruction.
- Sign Refers to a surface on prepared for the warning of, or safety instructions of, industrial workers or members of the public who may be exposed to hazards. Excluded from this definition, however, are news releases, displays commonly known as safety posters, and bulletins used for employee education.
- *Signal word* That portion of a tag's inscription that contains the word or words that are intended to capture the employee's immediate attention.
- Tag A device usually made of card, paper, pasteboard, plastic or other material used to identify a hazardous condition.

TRAINING ATTENDANCE ROSTER MARKING INDUSTRIAL HAZARDS						
Marking Industrial Hazards Training Includes:General Sign RequirementsColors UsedSigns and TagsDanger SignsCaution SignsSafety Signs						
INSTRUCTOR:	<u>DATE:</u>	<u>LOCATION</u> :				
NAME (Please Print) FIRST - MI - LAST	SIGNATURE					
By signing below, I attest that I have attended the safe by the safety information, procedures, rules, regulat instructor	ty training for the topic indicat ions and/or company policy as ed	ed, and will abide presented and				

Name of Interpreter, if utilized:

PROGRAM OVERVIEW

NOISE EXPOSURE AND HEARING CONSERVATION SAFETY PROGRAM

REGULATORY STANDARD: OSHA - 29 CFR 1910.95 - 29 CFR 1926.52

INTRODUCTION

OSHA mandates employers to protect their employees against occupational noise exposure when sound levels exceed established the action level of 85 dBa over an 8-hour time weighted average. This program ensures adherence to the OSHA standard by detailing requirements for audiometric testing, hearing conservation, and training. It also contains recordkeeping parameters and offers guidance in computing noise exposure and estimating the adequacy of hearing protector attenuation.

TRAINING

Institute an annual training program for all employees who are exposed to noise at or above an 8-hour time weighted average of 85 decibels

ACTIVITIES

- Determine where noise levels exist above regulatory levels, conduct monitoring
- · Establish a Hearing Conservation Program
- Establish engineering controls, administrative controls or protective equipment requirements (in that order) to reduce or eliminate the health and safety effects of noise
- Notify employees exposed at or above action levels
- Ensure employees exposed at or above the action level receive baseline and annual audiograms
- Record any noise related hearing loss as required on OSHA recordkeeping forms
- Ensure protective equipment and materials are available, as needed or required
- Track employee training to assure annual and refresher training programs are provided
- Post and make available to affected employees a copy of the Standard

FORMS

- Hearing Conservation Program Responsibilities
- Noise Exposure Computation and Rating Tables
- · Text of Noise Exposure and Hearing Conservation Standard
- Training Attendance Roster

Table of Contents

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

NOISE EXPOSURE AND HEARING CONSERVATION SAFETY PROGRAM

- **1. Purpose.** The employer is required to protect employees from potentially harmful noise by implementing appropriate hearing conservation and noise control measures.
- **2. Scope.** This program applies to all company facilities or job-sites where noise exposures exist above regulatory levels.

3. Responsibilities

- 3.1. Management/Supervisors
 - 3.1.1. Establish a Hearing Conservation Program
 - 3.1.2. Establish engineering controls, administrative controls or protective equipment requirements (in that order) to reduce or eliminate the health and safety effects of noise.
 - 3.1.3. Develop and implement a noise monitoring program.
 - 3.1.4. Ensure employees exposed at or above the action level receive baseline and annual audiograms.
 - 3.1.5. Ensure hearing protection is available, as needed or required.
 - 3.1.6. Provide initial and annual training to affected employees.
 - 3.1.7. Provide employees access to audiometric testing results, monitoring results, and the Occupational Noise Exposure Standard.
 - 3.1.8. Provide employees the opportunity to observe (or participate in) audiometric testing.

3.2. Employees

- 3.2.1. Report signs and symptoms of noise exposure to supervisors immediately.
- 3.2.2. Attend required training.
- 3.2.3. Utilize hearing protective devices, when required.

4. Procedure

4.1. Hearing Conservation Program

- 4.1.1. The employer will administer a continuing, effective Hearing Conservation Program, whenever employee noise exposures equal or exceed an 8 hour time weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response) or, equivalently, a dose of fifty percent. For purposes of the Hearing Conservation Program, employee noise exposures will be computed without regard to any attenuation provided by the use of personal protective equipment. (An 8-hour time weighted average of 85 decibels or a dose of fifty percent will also be referred to as the *action level*.)
- 4.2. Monitoring. When information indicates that any employee's exposure may equal or exceed an 8-hour time weighted average of 85 decibels, this monitoring program will be implemented.
 - 4.2.1. The company will conduct sampling on an annual basis, at a minimum, where noise levels are known or suspected to exceed regulatory thresholds. Sampling is designed to identify employees for inclusion in the Hearing Conservation Program and to enable the proper selection of hearing protectors.
 - 4.2.2. Where circumstances such as high worker mobility, significant variations in sound level, or a significant component of impulse noise make area monitoring ineffective, the employer will use representative personal sampling to comply with the regulatory monitoring requirements.
 - 4.2.3. All continuous, intermittent and impulsive sound levels from 80 decibels to 130 decibels will be integrated into the noise measurements.
 - 4.2.4. Instruments used to measure employee noise exposure will have been calibrated to ensure measurement accuracy.
 - 4.2.5. Monitoring will be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:
 - 4.2.5.1. Additional employees may be exposed at or above the action level.
 - 4.2.5.2. The attenuation or reduction in noise levels provided by hearing protectors are or may be rendered inadequate to meet the requirements.
 - 4.2.6. Employee notification. The company will notify each employee exposed at or above an 8-hour time weighted average of 85 decibels of the results of the monitoring.
 - 4.2.7. Observation of monitoring. The company will provide affected employees or their representatives with an opportunity to observe any noise measurements conducted.
- 4.3. Audiometric Testing Program
 - 4.3.1. An audiometric testing program will be maintained that is free of charge for employees whose exposures equal or exceed noise action level (85dBa over 8 hours).

- 4.3.2. Audio metric tests will be performed by a licensed or certified audiologist, otolaryngologist, or other physician, or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist or physician.
- 4.3.3. All audiograms obtained pursuant to this section shall meet the requirements of Appendix C: "Audiometric Measuring Instruments."
- 4.4. Baseline audiogram
 - 4.4.1. Within 6 months of an employee's first exposure at or above the action level, the company will establish a valid baseline audiogram against which subsequent audiograms can be compared. Where baseline audiograms cannot be obtained within this timeframe, employees will wear hearing protectors until the baseline audiogram is obtained.
 - 4.4.2. Mobile test van exception. Where mobile test vans are used to meet the audiometric testing obligation, the employer shall obtain a valid baseline audiogram within 1 year of an employee's first exposure at or above the action level. Where baseline audiograms are obtained more than 6 months after the employee's first exposure at or above the action level, employees shall wear hearing protectors for any period exceeding six months after first exposure until the baseline audiogram is obtained.
 - 4.4.3. Testing to establish a baseline audiogram will be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise. The company will notify employees of the need to avoid high levels of non-Noise exposure during the 14-hour period immediately preceding the audiometric examination.
- 4.5. Annual audiogram. At least annually after obtaining the baseline audiogram, the company will obtain a new audiogram for each employee exposed at or above an 8-hour time weighted average of 85 decibels.
- 4.6. Evaluation of audiogram. Each employee's annual audiogram will be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. This comparison may be done by an individual trained to the audiometric technician level.
 - 4.6.1. If the annual audiogram shows that an employee has suffered a standard threshold shift, a retest will be accomplished within 30 days and the results considered as the annual audiogram.
 - 4.6.2. Problem audiograms. The company will ensure that an audiologist, otolaryngologist, or physician review problem audiograms and determine whether there is a need for further evaluation. The reviewer will be provided the following information:

- 4.6.2.1. A copy of the requirements of the Occupational Noise Exposure standard.
- 4.6.2.2. The baseline audiogram and most recent audiogram of the employee to be evaluated.
- 4.6.2.3. Measurements of background sound pressure levels in the audiometric test room, (if the testing was not conducted at the reviewer's facility).
- 4.6.2.4. Records of audiometer calibrations, (if the testing was not conducted at the reviewer's facility).
- 4.6.3. Follow-up procedures. If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift has occurred, the employee will be informed of this fact in writing, within 21 days of the determination.
- 4.6.4. Standard threshold shift. A standard threshold shift is a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear. In determining whether a standard threshold shift has occurred, allowance may be made for the contribution of aging (presbycusis) to the change in hearing level by correcting the annual audiogram in accordance with the regulatory standards. Unless a physician determines that the standard threshold shift is not work related or aggravated by Noise exposure, the company will ensure that the following steps are taken when a standard threshold shift occurs:
 - 4.6.4.1. Employees exposed or potentially exposed to high noise will be fitted with hearing protectors, trained in their use and care, and required to use them. For known high noise job assignments, employees will be fitted and trained prior to job assignment.
 - 4.6.4.2. Employees already using hearing protectors will be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.
 - 4.6.4.3. Employees will be referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if it is suspected that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.
 - 4.6.4.4. Employees will be informed of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.
 - 4.6.4.5. If subsequent audiometric testing of an employee whose exposure to noise is less than an 8 hour TWA of 90 decibels indicates that a standard threshold shift is not persistent, the company:
 - 4.6.4.5.1. Will inform the employee of the new audiometric interpretation.
 - 4.6.4.5.2. May discontinue the required use of hearing protectors for that employee.

- 4.6.5. Revised baseline. An annual audiogram may be substituted for the baseline audiogram when, in the judgment of the audiologist, otolaryngologist or physician who is evaluating the audiogram determine that:
 - 4.6.5.1. The standard threshold shift revealed by the audiogram is persistent.
 - 4.6.5.2. The hearing threshold shown in the annual audiogram indicates significant improvement over the baseline audiogram.
- 4.7. Audiometric test requirements. Audiometric tests conducted will meet all regulatory requirements and be administered by a licensed audiologist or other equivalent professional. Audiometric examinations will be administered in a room meeting the regulatory requirements for Audiometric Test Rooms.
- 4.8. Audiometer calibration. The functional operation of the audiometer will be checked and calibrated before each day's use, in accordance with manufacturer's requirements and/or regulatory standards.
 - 4.8.1.1. An exhaustive calibration will be performed at least every two years. Test frequencies below 500 Hz and above 6000 Hz may be omitted from this calibration.
- 4.9. Hearing protectors
 - 4.9.1. The company will make hearing protections available to all employees exposed to an 8-hour time weighted average of 85 decibels or greater at no cost to the employees.
 - 4.9.2. The employer will require employees to wear hearing protection when:

PERMISSIBLE NOISE EXPOSURES					
Duration per day, hours	Sound level dBA slow response				
8	90				
6	92				
4	95				
3	97				
2	100				
1 1/2	102				
1	105				
1/2	110				
1⁄4 or less	115				

4.9.2.1. Noise levels meet or exceed the following levels:

4.9.2.2. By any employee who is required by previous testing to wear personal protective equipment.

- 4.9.2.3. By any employee who is exposed to an 8-hour time weighted average of 85 decibels or greater, and who: has not yet had a baseline audiogram established, or has experienced a standard threshold shift.
- 4.9.3. Employees will be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided.
- 4.9.4. The company will ensure proper initial fitting and supervise the correct use of all hearing protectors.
- 4.10. Hearing protector attenuation. The company will evaluate hearing protector attenuation for the specific noise environments in which the protector will be used in accordance with regulatory requirements. One of the evaluation methods described in Appendix B: Methods for Estimating the Adequacy of Hearing Protection Attenuation will be used.
 - 4.10.1. Selected hearing protectors will attenuate employee exposure at least to an 8 hour time weighted average of 90 decibels.
 - 4.10.2. For employees who have experienced a standard threshold shift, selected hearing protectors must attenuate their exposure to an 8-hour time weighted average of 85 decibels or below.
 - 4.10.3. The adequacy of hearing protector attenuation will be re-evaluated whenever employee noise exposures increase to the extent that the hearing protectors provided may no longer provide adequate attenuation. More effective hearing protectors will be provided where necessary.

5. Safety Information

- 5.1. Recordkeeping
 - 5.1.1. Exposure measurements. The company will maintain an accurate record of all employee exposure measurements.
 - 5.1.2. Audiometric tests. The company will maintain accurate records of the measurements of the background sound pressure levels in audiometric test rooms. Additionally, all employee audiometric test records will be retained. These employee records will include as a minimum:
 - 5.1.2.1. Name and job classification of the employee
 - 5.1.2.2. Date of the audiogram
 - 5.1.2.3. The examiner's name
 - 5.1.2.4. Date of the last acoustic or exhaustive calibration of the audiometer
 - 5.1.2.5. Employee's most recent noise exposure assessment

- 5.1.3. Record retention. The company will retain audiometric and related records for at least the following periods.
 - 5.1.3.1. Noise exposure measurement records for two years.
 - 5.1.3.2. Audiometric test records for the duration of the affected employee's employment.
- 5.1.4. Access to records. All records cited in this safety program will be provided upon request to employees, former employees, representatives designated by the individual employee, and representatives of OSHA. Copies of this program and the text of the regulation (29CFR1910.95) will be available and will be posted in the work place noise zone.
- 5.1.5. Transfer of records. If the company ceases to do business, the records will be transferred to the successor employer and maintained by the successor employer. Should the company cease to function entirely; the records will be provided to the respective employees, or as required by current law.

6. Training and Information

- 6.1. The company will institute a training program for all employees who are exposed to noise at or above an 8-hour time weighted average of 85 decibels, and will ensure employee participation in such program.
- 6.2. The training program will be repeated annually for each employee included in the Hearing Conservation Program. Information provided in the training program will be updated to be consistent with changes in protective equipment and work processes. Each employee will be informed of the following:
 - 6.2.1. The effects of noise on hearing.
 - 6.2.2. The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care.
 - 6.2.3. The purpose of audiometric testing, and an explanation of the test procedures.

7. Definitions

- *Action level*--An 8-hour time weighted average of 85 decibels measured on the A-scale, slow response, or equivalently, a dose of fifty percent.
- *Audiogram--*A chart, graph, or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.
- Audiologist--A professional specializing in the study and rehabilitation of hearing that is certified by the American Speech-Language-Hearing Association or licensed by a state board of examiners.
- *Baseline audiogram*--The audiogram against which future audiograms are compared.

- Ø DBA (Decibel "A" weighted) A sound level measured using the "A" weighted scale of a sound level meter.
- Ø Noise dosimeter--An instrument that integrates a function of sound pressure over a period of time in such a manner that it directly indicates a noise dose.
- Ø Noise Reduction Rating (NRR) The reduction in sound level that may be obtained by a hearing protection device if it is worn properly.
- Otolaryngologist-A physician specializing in diagnosis and treatment of disorders of the ear, nose and throat.
- Standard Threshold Shift (STS) defined by OSHA as "a change in hearing threshold relative to the baseline audiogram of an average of 10 dBA or more at 2000, 3000 and 4000 Hz in either ear".
- *Time weighted average sound level*--That sound level, which if constant over an 8-hour exposure, would result in the same noise dose as is measured.

HEARING CONSERVATION PROGRAM RESPONSIBILITES

General

<u>Scheldh</u>
is responsible for maintaining the Hearing Conservation Program.
Noise monitoring will be conducted by using the Noise Exposure Measurements form or other applicable document.
Audiometric Testing:
Notification of employees of the need to avoid high levels of non-occupational noise exposure during the 14 hour period immediately preceding the audiometric examination will be conducted by
is responsible for maintaining a record of all employee audiometric test records.
will inform the employee, in writing, within 21 days of this determination, of the existence of a permanent Standard Threshold Shift. A copy of the STS letter will also be sent to the employee's supervisor.
The employees will be instructed by on the importance of using hearing protectors and refer the employee for further clinical evaluation if necessary.
If subsequent audiometric testing of an employee whose exposure to noise is less than an 8-hour TWA of 90 decibels indicates that a Standard Threshold Shift is not persistent,
Protective Equipment:
shall ensure that hearing protectors are worn per the requirements of this program.
will provide training in the use and care of all hearing protectors.
will ensure proper initial fitting and supervise the correct use of all hearing protectors.
will evaluate the attenuation characteristics of the hearing protectors to ensure that a given protector will reduce the individual's exposure to the required decibels using the <i>Hearing Protection Equipment Summary</i> .
Employee Educational Training:
An annual training program for each employee included in the hearing conservation program will be conducted by and will include all information required by this program.
is responsible for keeping training records.
Program Evaluation:
The Hearing Protection Program will be evaluated periodically by After the evaluation, the changes/revisions to the program deemed necessary will be made as soon as possible.
Completed by: Date:

Date: _____

NOISE EXPOSURE COMPUTATION AND RATING TABLES

Age Co	Age Correction Values in Decibels (reference tables F-1 and F-2).								
	Audiometric test frequency (Hz)								
Age	je 1000 2000 3000 4000 6000								
32	6	5	7	10	14				
27	5	4	6	7	11				
Differenc e	1	1	1	3	3				

The difference represents the amount of hearing loss that may be attributed to aging in the time period between the baseline audiogram and the most recent audiogram. In this example, the difference at 4000 Hz is 3 dB. This value is subtracted from the hearing level at 4000 Hz, which in the most recent audiogram is 25, yielding 22 after adjustments. Then the hearing threshold in the baseline audiogram at 4000 Hz (5) is subtracted from the adjusted annual audiogram-hearing threshold at 4000 Hz (22). Thus, the age-corrected threshold shift would be 17 dB (as opposed to a threshold shift of 20 dB without age correction).

Appendix A, 29 CFR 1910.95 - Noise Exposure Computation Computation of Employee Noise Exposure

- When the sound level, L, is constant over the entire work shift, the noise dose, D, in percent, is given by: D = 100 C/T where C is the total length of the work day, in hours, and T is the reference duration corresponding to the measured sound level, L, as given in Table G-16a below or by the formula shown as a footnote to that table.
- When the work-shift noise exposure is composed of two or more periods of noise at different levels, the total noise dose over the work day is given by:

$$D = 100 (C1/T1+C2/T2+...+Cn/Tn)$$

• Where Cn indicates the total time of exposure at a specific noise level, and Tn indicates the reference duration for that level as given by Table G-16a (as per attached). The eight-hour time weighted average sound level (TWA), in decibels, may be computed from the dose, in percent, by means of the formula: TWA = 16.61 log10 (D/100) +90. For an eight-hour work shift with the noise level constant over the entire shift, the TWA is equal to the measured sound level.

Conversion Between "Dose" and "8-Hour Time-Weighted Average" Sound Level

- Compliance will be determined by the amount of exposure to noise in the workplace, usually measured with an audio dosimeter which gives a readout in terms of "dose" and then converted to an "8 hour time weighted average" (TWA). Reference Table A-1 of the regulations to make the conversion.
- If the dose as read on the dosimeter is less than or greater than, the values found in Table A-1, the TWA may be calculated by using the formula: TWA = 16.61 log10 (D/100) +90 where TWA = 8-hour time weighted average sound level and D = accumulated dose in percent exposure.

Appendix B, 29 CFR 1910.95

Estimating the Adequacy of Hearing Protector Attenuation

• For employees who have experienced a significant threshold shift, hearing protection provided will have an attenuation that is sufficient to reduce employee exposure to a TWA of 85 dB. The following method will be used to estimate the adequacy of hearing protector attenuation (reduction or protectiveness).

• The Noise Reduction Rating (NRR) developed by the Environmental Protection Agency (EPA) will be used. Only approved hearing protection equipment showing the NRR on the hearing protector package will be used by the company. The NRR will be related to an individual employee's noise environment in order to assess the adequacy of the attenuation of a given hearing protector. When using the NRR to assess hearing protector adequacy, one of the following methods will be used:

- · Dosimeter (C-weighted):
 - o Obtain the C-weighted dose for the entire work shift, and convert to TWA.
 - Subtract the NRR from the C-weighted TWA to obtain the estimated A-weighted TWA under the ear protector.
- Dosimeter (not capable of C-weighted measurements):
 - Convert the A-weighted dose to TWA.
 - Subtract 7 dB from the NRR.
 - Subtract the remainder from the A-weighted TWA to obtain the estimated A weighted TWA under the ear protector.
- Sound level meter (set to the A-weighting network):
 - Obtain the A-weighted TWA.
 - Subtract 7 dB from the NRR, and subtract the remainder from the A-weighted TWA to obtain the estimated A-weighted TWA under the ear protector.
- Sound level meter (set to the C-weighting network):
 - Obtain a representative sample of the C-weighted sound levels in the area.
 - Subtract the NRR from the C-weighted average sound level to obtain the estimated Aweighted TWA under the ear protector.
- When using area monitoring procedures and a sound level meter set to the A-weighing network.
 - Obtain a representative sound level for the area in question.
 - Subtract 7 dB from the NRR and subtract the remainder from the A-weighted sound level for that area.
- When using area monitoring procedures and a sound level meter set to the C-weighting network:
 - Obtain a representative sound level for the area in question.
 - Subtract the NRR from the C-weighted sound level for that area.

NOISE EXPOSURE RATINGS							
TABLE A-1							
Dose or percent noise	<u>TWA exposure</u>	TWA exposure Dose or percent noise TWA					
10	73.4	87	89.0				
15	76.3	88	89.1				
20	78.4	89	89.2				
25	80.0	90	89.2				
30	81.3	91	89.3				
35	82.4	92	89.4				
40	83.4	93	89.5				
45	84.2	94	89.6				
50	85.0	95	89.6				
55	85.7	96	89.7				
60	86.3	97	89.8				
65	86.9	98	89.9				
70	87.4	99	89.9				
75	87.9	100	90.0				
80	88.4	101	90.1				
81	88.5	102	90.1				
82	86.6	103	90.2				
83	88.7	104	90.3				
84	88.7	105	90.4				
85	88.8	106	90.4				
86	88.9						

NOISE EXPOSURE RATINGS											
TABLE F-1											
Age Correction Values in Decibels for <u>Males</u> Audiometric test frequency (Hz)											
Years	1000	2000	3000	4000	6000	Years	1000	2000	3000	4000	6000
20 & under	5	3	4	5	8	41	7	6	10	14	20
21	5	3	4	5	8	42	8	7	11	16	20
22	5	3	4	5	8	43	8	7	12	16	21
23	5	3	4	6	9	44	8	7	12	17	22
24	5	3	5	6	9	45	8	7	13	18	23
25	5	3	5	7	10	46	8	8	13	19	24
26	5	4	5	7	10	47	8	8	14	19	24
27	5	4	6	7	11	48	9	8	14	20	25
28	6	4	6	8	11	49	9	9	15	21	26
29	6	4	6	8	12	50	9	9	16	22	27
30	6	4	6	9	12	51	9	9	16	23	28
31	6	4	7	9	13	52	9	10	17	24	29
32	6	5	7	10	14	53	9	10	18	25	30
33	6	5	7	10	14	54	10	10	18	26	31
34	6	5	8	11	15	55	10	11	19	27	32
35	7	5	8	11	15	56	10	11	20	28	34
36	7	5	9	12	16	57	10	11	21	29	35
37	7	6	9	12	17	58	10	12	22	31	36
38	7	6	9	13	17	59	11	12	22	32	37
39	7	6	10	14	18	60 & over	11	13	23	33	38
40	7	6	10	14	19						

NOISE EXPOSURE RATINGS											
	TABLE F-2										
Age	Age Correction Values in Decibels for <i>Females</i> Audiometric test frequency (Hz)										
Years	1000	2000	3000	4000	6000	Years	1000	2000	3000	4000	6000
20 & under	7	4	3	3	6	41	10	8	8	8	13
21	7	4	4	3	6	42	10	8	9	9	13
22	7	4	4	4	6	43	11	8	9	9	14
23	7	5	4	4	7	44	11	8	9	9	14
24	7	5	4	4	7	45	11	8	10	10	15
25	8	5	4	4	7	46	11	9	10	10	15
26	8	5	5	4	8	47	11	9	10	11	16
27	8	5	5	5	8	48	12	9	11	11	16
28	8	5	5	5	8	49	12	9	11	11	16
29	8	5	5	5	9	50	12	10	11	12	17
30	8	6	5	5	9	51	12	10	12	12	17
31	8	6	6	5	9	52	12	10	12	13	18
32	9	6	6	6	10	53	13	10	13	13	18
33	9	6	6	6	10	54	13	11	13	14	19
34	9	6	6	6	10	55	13	11	14	14	19
35	9	6	7	7	11	56	13	11	14	15	20
36	9	7	7	7	11	57	13	11	15	15	20
37	9	7	7	7	12	58	14	12	15	16	21
38	10	7	7	7	12	59	14	12	16	16	21
39	10	7	8	8	12	60 & over	14	12	16	17	22
40	10	7	8	8	13						

NOISE EXPOSURE RATINGS						
TABLE G 16-A						
<u>A-weighted sound level,</u> <u>L (decibel)</u>	Reference duration, T (hour)	<u>A-weighted sound level,</u> <u>L (decibel)</u>	Reference duration, <u>T (hour</u>)			
80	32.0	106	0.87			
81	27.9	107	0.76			
82	24.3	108	0.66			
83	21.1	109	0.57			
84	18.4	110	0.50			
85	16.0	111	0.44			
86	13.9	112	0.38			
87	12.1	113	0.33			
88	10.6	114	0.29			
89	9.2	115	0.25			
90	8.0	116	0.22			
91	7.0	117	0.19			
92	6.1	118	0.16			
93	5.3	119	0.14			
94	4.6	120	0.125			
95	4.0	121	0.11			
96	3.5	122	0.095			
97	3.0	123	0.082			
98	2.6	124	0.072			
99	2.3	125	0.063			
100	2.0	126	0.054			
101	1.7	127	0.047			
102	1.5	128	0.041			
103	1.3	129	0.036			
104	1.1	130	0.031			
105	1.0					

In the above table the reference duration

T is computed by where L is the measured A-weighted sound level.

2(L-90)/5

Text of Noise and Hearing Conservation Standard

Must be posted in work areas where hearing protection is required

<u>1910.95(a)</u>

Protection against the effects of noise exposure shall be provided when the sound levels exceed those shown in Table G-16 when measured on the A scale of a standard sound level meter at slow response. When noise levels are determined by octave band analysis, the equivalent A-weighted sound level may be determined as follows:



FIGURE G-9

Equivalent sound level contours. Octave band sound pressure levels may be converted to the equivalent A-weighted sound level by plotting them on this graph and noting the A-weighted sound level corresponding to the point of highest penetration into the sound level contours. This equivalent A-weighted sound level, which may differ from the actual A-weighted sound level of the noise, is used to determine exposure limits from Table 1.G-16.

<u>1910.95(b)(1)</u>

When employees are subjected to sound exceeding those listed in Table G-16, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the levels of Table G-16, personal protective equipment shall be provided and used to reduce sound levels within the levels of the table.

1910.95(b)(2)

If the variations in noise level involve maxima at intervals of 1 second or less, it is to be considered continuous.

TABLE G-10 - PERIVISS	SIBLE NUISE EXPUSURES (1)
Duration per day, hours	Sound level dBA slow response
	•

8	90	
6	92	
4	95	
3	97	
2	100	
1 1/2	102	
1	105	
1/2	110	
1/4 or less	115	
·		

Footnote(1) When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the following fractions: C(1)/T(1) + C(2)/T(2) C(n)/T(n) exceeds unity, then, the mixed exposure should be considered to exceed the limit value. Cn indicates the total time of exposure at a specified noise level, and Tn indicates the total time of exposure permitted at that level. Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

<u>1910.95(c)</u>

"Hearing conservation program."

1910.95(c)(1)

The employer shall administer a continuing, effective hearing conservation program, as described in paragraphs (c) through (o) of this section, whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response) or, equivalently, a dose of fifty percent. For purposes of the hearing conservation program, employee noise exposures shall be computed in accordance with appendix A and Table G-16a, and without regard to any attenuation provided by the use of personal protective equipment.

1910.95(c)(2)

For purposes of paragraphs (c) through (n) of this section, an 8-hour time-weighted average of 85 decibels or a dose of fifty percent shall also be referred to as the action level.

<u>1910.95(d)</u>

"Monitoring."

1910.95(d)(1)

When information indicates that any employee's exposure may equal or exceed an 8-hour timeweighted average of 85 decibels, the employer shall develop and implement a monitoring program.

1910.95(d)(1)(i)

The sampling strategy shall be designed to identify employees for inclusion in the hearing conservation program and to enable the proper selection of hearing protectors.

<u>1910.95(d)(1)(ii)</u>

Where circumstances such as high worker mobility, significant variations in sound level, or a significant component of impulse noise make area monitoring generally inappropriate, the employer shall use representative personal sampling to comply with the monitoring requirements of this paragraph unless the employer can show that area sampling produces equivalent results.

1910.95(d)(2)(i)

All continuous, intermittent and impulsive sound levels from 80 decibels to 130 decibels shall be integrated into the noise measurements.

1910.95(d)(2)(ii)

Instruments used to measure employee noise exposure shall be calibrated to ensure measurement accuracy.

1910.95(d)(3)

Monitoring shall be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:

1910.95(d)(3)(i)

Additional employees may be exposed at or above the action level; or

1910.95(d)(3)(ii)

The attenuation provided by hearing protectors being used by employees may be rendered inadequate to meet the requirements of paragraph (j) of this section.

<u>1910.95(e)</u>

"Employee notification." The employer shall notify each employee exposed at or above an 8-hour time-weighted average of 85 decibels of the results of the monitoring.

<u>1910.95(f)</u>

"Observation of monitoring." The employer shall provide affected employees or their representatives with an opportunity to observe any noise measurements conducted pursuant to this section.

1910.95(g)

"Audiometric testing program."

<u>1910.95(g)(1)</u>

The employer shall establish and maintain an audiometric testing program as provided in this paragraph by making audiometric testing available to all employees whose exposures equal or exceed an 8-hour time-weighted average of 85 decibels.

1910.95(g)(2)

The program shall be provided at no cost to employees.

1910.95(g)(3)

Audiometric tests shall be performed by a licensed or certified audiologist, otolaryngologist, or other physician, or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations, obtaining valid audiograms, and properly using, maintaining and checking calibration and proper functioning of the audiometers being used. A technician who operates microprocessor audiometers does not need to be certified. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist or physician.

1910.95(g)(4)

All audiograms obtained pursuant to this section shall meet the requirements of Appendix C: "Audiometric Measuring Instruments."

<u>1910.95(g)(5)</u>

"Baseline audiogram."

<u>1910.95(g)(5)(i)</u>

Within 6 months of an employee's first exposure at or above the action level, the employer shall establish a valid baseline audiogram against which subsequent audiograms can be compared. **1910.95(g)(5)(ii)**

"Mobile test van exception." Where mobile test vans are used to meet the audiometric testing obligation, the employer shall obtain a valid baseline audiogram within 1 year of an employee's first exposure at or above the action level. Where baseline audiograms are obtained more than 6 months after the employee's first exposure at or above the action level, employees shall wear hearing protectors for any period exceeding six months after first exposure until the baseline audiogram is obtained.

1910.95(g)(5)(iii)

Testing to establish a baseline audiogram shall be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise.

1910.95(g)(5)(iv)

The employer shall notify employees of the need to avoid high levels of non-occupational noise exposure during the 14-hour period immediately preceding the audiometric examination. **1910.95(g)(6)**

"Annual audiogram." At least annually after obtaining the baseline audiogram, the employer shall obtain a new audiogram for each employee exposed at or above an 8-hour time-weighted average of 85 decibels.

1910.95(g)(7)

"Evaluation of audiogram."

1910.95(g)(7)(i)

Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift as defined in paragraph (g)(10) of this section has occurred. This comparison may be done by a technician.

<u>1910.95(g)(7)(ii)</u>

If the annual audiogram shows that an employee has suffered a standard threshold shift, the employer may obtain a retest within 30 days and consider the results of the retest as the annual audiogram.

1910.95(g)(7)(iii)

The audiologist, otolaryngologist, or physician shall review problem audiograms and shall determine whether there is a need for further evaluation. The employer shall provide to the person performing this evaluation the following information:

1910.95(g)(7)(iii)(A)

A copy of the requirements for hearing conservation as set forth in paragraphs (c) through (n) of this section;

1910.95(g)(7)(iii)(B)

The baseline audiogram and most recent audiogram of the employee to be evaluated;

1910.95(g)(7)(iii)(C)

Measurements of background sound pressure levels in the audiometric test room as required in Appendix D: Audiometric Test Rooms.

1910.95(g)(7)(iii)(D)

Records of audiometer calibrations required by paragraph (h)(5) of this section.

<u>1910.95(g)(8)</u>

"Follow-up procedures."

<u>1910.95(g)(8)(i)</u>

If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift as defined in paragraph (g)(10) of this section has occurred, the employee shall be informed of this fact in writing, within 21 days of the determination.

<u>1910.95(g)(8)(ii)</u>

Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, the employer shall ensure that the following steps are taken when a standard threshold shift occurs:

1910.95(g)(8)(ii)(A)

Employees not using hearing protectors shall be fitted with hearing protectors, trained in their use and care, and required to use them.

1910.95(g)(8)(ii)(B)

Employees already using hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary. **1910.95(g)(8)(ii)(C)**

The employee shall be referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if the employer suspects that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors. **1910.95(g)(8)(ii)(D)**

The employee is informed of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.

1910.95(g)(8)(iii)

If subsequent audiometric testing of an employee whose exposure to noise is less than an 8-hour TWA of 90 decibels indicates that a standard threshold shift is not persistent, the employer: 1910.95(g)(8)(iii)(A)

Shall inform the employee of the new audiometric interpretation; and 1910.95(g)(8)(iii)(B)

May discontinue the required use of hearing protectors for that employee.

<u>1910.95(g)(9)</u>

"Revised baseline." An annual audiogram may be substituted for the baseline audiogram when, in the judgment of the audiologist, otolaryngologist or physician who is evaluating the audiogram:

<u>1910.95(g)(9)(i)</u>

The standard threshold shift revealed by the audiogram is persistent; or

1910.95(g)(9)(ii)

The hearing threshold shown in the annual audiogram indicates significant improvement over the baseline audiogram.

1910.95(g)(10)

"Standard threshold shift."

<u>1910.95(g)(10)(i)</u>

As used in this section, a standard threshold shift is a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear. **1910.95(g)(10)(ii)**

In determining whether a standard threshold shift has occurred, allowance may be made for the contribution of aging (presbycusis) to the change in hearing level by correcting the annual audiogram according to the procedure described in Appendix F: "Calculation and Application of Age Correction to Audiograms."

1910.95(h)

"Audiometric test requirements."

1910.95(h)(1)

Audiometric tests shall be pure tone, air conduction, hearing threshold examinations, with test frequencies including as a minimum 500, 1000, 2000, 3000, 4000, and 6000 Hz. Tests at each frequency shall be taken separately for each ear.

1910.95(h)(2)

Audiometric tests shall be conducted with audiometers (including microprocessor audiometers) that meet the specifications of, and are maintained and used in accordance with, American National Standard Specification for Audiometers, S3.6-1969, which is incorporated by reference as specified in Sec. 1910.6.

1910.95(h)(3)

Pulsed-tone and self-recording audiometers, if used, shall meet the requirements specified in Appendix C: "Audiometric Measuring Instruments."

1910.95(h)(4)

Audiometric examinations shall be administered in a room meeting the requirements listed in Appendix D: "Audiometric Test Rooms."

1910.95(h)(5)

"Audiometer calibration."

1910.95(h)(5)(i)

The functional operation of the audiometer shall be checked before each day's use by testing a person with known, stable hearing thresholds, and by listening to the audiometer's output to make sure that the output is free from distorted or unwanted sounds. Deviations of 10 decibels or greater require an acoustic calibration.

1910.95(h)(5)(ii)

Audiometer calibration shall be checked acoustically at least annually in accordance with Appendix E: "Acoustic Calibration of Audiometers." Test frequencies below 500 Hz and above 6000 Hz may be omitted from this check. Deviations of 15 decibels or greater require an exhaustive calibration.

1910.95(h)(5)(iii)

An exhaustive calibration shall be performed at least every two years in accordance with sections 4.1.2; 4.1.3.; 4.1.4.3; 4.2; 4.4.1; 4.4.2; 4.4.3; and 4.5 of the American National Standard Specification for Audiometers, S3.6-1969. Test frequencies below 500 Hz and above 6000 Hz may be omitted from this calibration.

1910.95(i)

"Hearing protectors."

<u>1910.95(i)(1)</u>

Employers shall make hearing protectors available to all employees exposed to an 8-hour timeweighted average of 85 decibels or greater at no cost to the employees. Hearing protectors shall be replaced as necessary.

<u>1910.95(i)(2)</u>

Employers shall ensure that hearing protectors are worn:

1910.95(i)(2)(i)

By an employee who is required by paragraph (b)(1) of this section to wear personal protective equipment; and

<u>1910.95(i)(2)(ii)</u>

By any employee who is exposed to an 8-hour time-weighted average of 85 decibels or greater, and who:

1910.95(i)(2)(ii)(A)

Has not yet had a baseline audiogram established pursuant to paragraph (g)(5)(ii); or

1910.95(i)(2)(ii)(B)

Has experienced a standard threshold shift.

<u>1910.95(i)(3)</u>

Employees shall be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided by the employer.

1910.95(i)(4)

The employer shall provide training in the use and care of all hearing protectors provided to employees.

1910.95(i)(5)

The employer shall ensure proper initial fitting and supervise the correct use of all hearing protectors.

1910.95(j)

"Hearing protector attenuation."

1910.95(j)(1)

The employer shall evaluate hearing protector attenuation for the specific noise environments in which the protector will be used. The employer shall use one of the evaluation methods described in Appendix B: "Methods for Estimating the Adequacy of Hearing Protection Attenuation."

1910.95(j)(2)

Hearing protectors must attenuate employee exposure at least to an 8-hour time-weighted average of 90 decibels as required by paragraph (b) of this section.

1910.95(j)(3)

For employees who have experienced a standard threshold shift, hearing protectors must attenuate employee exposure to an 8-hour time-weighted average of 85 decibels or below. **1910.95(j)(4)**

The adequacy of hearing protector attenuation shall be re-evaluated whenever employee noise exposures increase to the extent that the hearing protectors provided may no longer provide adequate attenuation. The employer shall provide more effective hearing protectors where necessary.

<u>1910.95(k)</u>

"Training program."

1910.95(k)(1)

The employer shall institute a training program for all employees who are exposed to noise at or above an 8-hour time-weighted average of 85 decibels, and shall ensure employee participation in such program.

1910.95(k)(2)

The training program shall be repeated annually for each employee included in the hearing conservation program. Information provided in the training program shall be updated to be consistent with changes in protective equipment and work processes.

1910.95(k)(3)

The employer shall ensure that each employee is informed of the following:

1910.95(k)(3)(i)

The effects of noise on hearing;

1910.95(k)(3)(ii)

The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care; and

1910.95(k)(3)(iii)

The purpose of audiometric testing, and an explanation of the test procedures.

1910.95(l)

"Access to information and training materials."

<u>1910.95(I)(1)</u>

The employer shall make available to affected employees or their representatives copies of this standard and shall also post a copy in the workplace.

1910.95(I)(2)

The employer shall provide to affected employees any informational materials pertaining to the standard that are supplied to the employer by the Assistant Secretary. 1910.95(I)(3)

The employer shall provide, upon request, all materials related to the employer's training and education program pertaining to this standard to the Assistant Secretary and the Director.

<u>1910.95(m)</u>

"Recordkeeping" -

1910.95(m)(1)

"Exposure measurements." The employer shall maintain an accurate record of all employee exposure measurements required by paragraph (d) of this section.

<u>1910.95(m)(2)</u>

"Audiometric tests."

1910.95(m)(2)(i)

The employer shall retain all employee audiometric test records obtained pursuant to paragraph (g) of this section:

1910.95(m)(2)(ii)

This record shall include:

1910.95(m)(2)(ii)(A)

Name and job classification of the employee;

1910.95(m)(2)(ii)(B)

Date of the audiogram;

1910.95(m)(2)(ii)(C)

The examiner's name;

1910.95(m)(2)(ii)(D)

Date of the last acoustic or exhaustive calibration of the audiometer; and

1910.95(m)(2)(ii)(E)

Employee's most recent noise exposure assessment.

1910.95(m)(2)(ii)(F)

The employer shall maintain accurate records of the measurements of the background sound pressure levels in audiometric test rooms.

1910.95(m)(3)

"Record retention." The employer shall retain records required in this paragraph (m) for at least the following periods.

<u>1910.95(m)(3)(i)</u>

Noise exposure measurement records shall be retained for two years.

1910.95(m)(3)(ii)

Audiometric test records shall be retained for the duration of the affected employee's employment.

1910.95(m)(4)

"Access to records." All records required by this section shall be provided upon request to employees, former employees, representatives designated by the individual employee, and the Assistant Secretary. The provisions of 29 CFR 1910.1020 (a)-(e) and (g)-

1910.95(m)(4)(i)

apply to access to records under this section.

<u>1910.95(m)(5)</u>

"Transfer of records." If the employer ceases to do business, the employer shall transfer to the successor employer all records required to be maintained by this section, and the successor employer shall retain them for the remainder of the period prescribed in paragraph (m)(3) of this section.

1910.95(n) "Appendices."

1910.95(n)(1)

Appendices A, B, C, D, and E to this section are incorporated as part of this section and the contents of these appendices are mandatory.

1910.95(n)(2)

Appendices F and G to this section are informational and are not intended to create any additional obligations not otherwise imposed or to detract from any existing obligations. **1910.95(o)**

"Exemptions." Paragraphs (c) through (n) of this section shall not apply to employers engaged in oil and gas well drilling and servicing operations.

TRAINING ATTENDANCE ROSTER							
Noise and Hearing Conservation Training Includes: • Purpose of equipment • Effects of noise on hearing ability • Warning signs of hearing loss • Sound levels and choosing the right protection • Types and effectiveness of protective equipment • How to wear equipment • Care and maintenance of equipment • Audiograms • Recordkeeping and docuementation							
INSTRUCTOR:	<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 instructe	ty training for the topic indicat ions and/or company policy as ed	ed, and will abide presented and					

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Name of Interpreter, if utilized:

PROGRAM OVERVIEW

OSHA RECORDKEEPING SAFETY PROGRAM

REGULATORY STANDARD - OSHA - 29 CFR 1904

INTRODUCTION

The OSHA Recordkeeping Standard requires certain industry segments with greater than 10 employees to evaluate workplace injuries and illnesses, and mandates these employers to collect, compile, retain, analyze and communicate this information to employees. This program establishes criteria for logging occupational injuries or illnesses, posting the annual summary and record retention.

TRAINING

Recommended that for supervisors and managers to assist in determining what is recordable.

ACTIVITIES

- For all employers regardless of exemptions, notify OSHA within 8 hours of fatalities and within 24 hours of work related inpatient hospitalization, amputation, or loss of an eye
- Maintain appropriate records: OSHA 300, 300A, and 301 (or equivalent) forms
- Supply the records and documentation to OSHA, as needed or required
- Post appropriate summaries of the OSHA recordkeeping forms
- Encourage employees to report any incidents (injuries, illnesses, and near-miss incidents)
- Report the contents and summaries of these documents upon being notified in writing by the Bureau of Labor Statistics that the employer has been selected to participate in a statistical survey of occupational injuries and illnesses
- Retain log and summary of all recordable occupational injuries and illnesses (OSHA 300 and OSHA 300A or equivalent) for 5 years

FORMS

- OSHA 300 Form
- OSHA 300A Form
- OSHA 301 Form
- Training attendance roster

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

OSHA RECORDKEEPING SAFETY PROGRAM

- 1. **Purpose.** Records are required to be kept by most employers that indicate the number, types and severity of work related injuries, illnesses and fatalities. The OSHA Recordkeeping Safety Program is designed to assist the company in compliance with the requirements of 29CFR1904 (OSHA's Recordkeeping Standard). The company will review and evaluate this safety program:
 - 1.1 When changes occur to 29 CFR 1904 that prompt revision of this document.
 - 1.2 When facility operational changes occur that require a revision of this document.
- **2. Scope.** The OSHA Recordkeeping Safety Program applies to all facilities and job sites where company employees work.

3. Responsibilities

- 3.1 Management/Supervisors
 - 3.1.1 Maintain appropriate records.
 - 3.1.2 Supply the records and documentation to OSHA, as needed or required.
 - 3.1.3 Notify OSHA within 8 hours of fatalities or within 24 hours of work related inpatient hospitalization, amputation, or loss of an eye.
 - CALIFORNIA also requires the reporting for one or more persons admitted to the hospital for treatment (not observation) for a period of more than 24 hours or if an employee loses any member of the body (finger, arm, leg, etc.) or suffers any serious permanent disfigurement.
 - 3.1.4 Post the 300A form.
 - 3.1.5 Encourage employees to report any incidents (injuries, illnesses, property damage, and near-miss incidents).

3.2 Employees

3.2.1 Report any work related injuries or illnesses immediately to management or your supervisor.

4. Procedure

- 4.1 General Recordkeeping Requirements
 - 4.1.1 Companies with eleven (11) or more employees at any time during the calendar year must comply with the provisions of the recordkeeping standard (29 CFR 1904).
 - 4.1.2 The company will maintain a log of occupational injuries and illnesses on the required OSHA 300, 300A and 301 (or equivalent) forms.
 - 4.1.2.1 The company will report the contents and summaries of these documents upon being notified in writing by the Bureau of Labor Statistics that the employer has been selected to participate in a statistical survey of occupational injuries and illnesses.
- 4.2 Log and Summary of Occupational Injuries and Illnesses (OSHA 300). The log will be used for classifying occupational injuries and illnesses, and for noting the extent of each case. The log shows when the occupational injury or illness occurred, to whom, the regular job of the injured or ill person at the time of the injury or illness exposure, the department or area in which the person was employed, the type of injury or illness, how much time was lost, whether the case resulted in a fatality, etc. The company will:
 - 4.2.1 Maintain a log and summary of all recordable occupational injuries and illnesses by calendar year, each year. Past logs must be maintained for 5 years, after which they may be discarded.
 - Each year's form will be updated to include newly discovered cases and to reflect changes that occur in recorded cases after the end of the calendar year. If, during the 5-year retention period, there is a change in the extent or outcome of an injury or illness which affects an entry on a previous year's log, then the first entry will be lined out and a corrected entry made on that log. New entries for previously unrecorded cases that are discovered will also be documented. Log totals will also be modified to reflect these changes.
 - 4.2.2 Enter each recordable injury and illness on the log and summary as early as practicable but no later than 7 working days after receiving information that a recordable injury or illness has occurred. For this purpose OSHA Form No. 300 or an equivalent document will be used. The log and summary will be completed in the detail provided in the form and instructions on form OSHA 300.
 - 4.2.3 If the company elects to maintain the log of occupational injuries and illnesses at a place other than the main facility or by means of data-processing equipment, or both, it will meet the following criteria:

- 4.2.3.1 There will be available at the place where the log is maintained sufficient information to complete the log to a date within 7 working days after receiving information that a recordable case has occurred.
- 4.2.3.2 At each facility there will be available a copy of the log which reflects separately the injury and illness experience of that establishment complete and current to a date within 45 calendar days.
- 4.3 Supplementary Record (OSHA 301)

In addition to the log of occupational injuries and illnesses (OSHA 300) the company will have (within 7 working days after receiving information that a recordable case has occurred) a supplementary record for each occupational injury or illness for that establishment. The record will be completed in the detail prescribed in the instructions accompanying Occupational Safety and Health Administration OSHA Form 301. Workmen's compensation, insurance, or other alternative records (provided they contain the information required by OSHA Form 301) are acceptable substitutes.

4.4 Annual Summary

The company will post an annual summary of occupational injuries and illnesses for each facility under our control. This summary will consist of a copy of the year's totals from the form OSHA 300 and the following information from that 300 form:

- Calendar year covered.
- Company name and establishment address.
- Verification signature, title, and date.
- A form OSHA No. 300-A will be used in presenting the summary. If no injuries or illnesses occurred in the year, zeros will be entered on the total line, and the form posted.
- The summary will be completed by February 1 of each calendar year. Management, or the officer or employee of the employer who supervises the preparation of the log and summary of occupational injuries and illnesses, will verify that the annual summary of occupational injuries and illnesses is true and complete. The verification will be accomplished by affixing their signature, attesting that the summary is true and complete.

• The company will post a copy of the establishment's summary (OSHA Form 300A) in each facility in a place accessible to employees and in a location where employees would normally look for such information. The summary covering the previous calendar year will be posted no later than February 1 and will remain in place until April 30. For employees who do not primarily report or work at a fixed site belonging to the company, or who do not report to any fixed site on a regular basis, we will satisfy this posting requirement by presenting or mailing a copy of the summary during the month of February of the following year to each such employee who receives pay during that month.

5. Safety Information

- 5.1 <u>Records Retention</u>. Records maintained by the company will be retained for the following time periods following the end of the year to which they relate.
 - 5.1.1 Log and summary of all recordable occupational injuries and illnesses (OSHA 300 and OSHA 300A or equivalent). Retained for 5 years.
 - 5.1.2 Supplementary records (OSHA 301 or equivalent) for each occupational injury or illness for this facility. Retained for 5 years.
 - 5.1.3 Employee exposure and medical records for company employees. Retained for the duration of employment plus an additional 30 years.
 - 5.1.4 Noise exposure measurement records. Retained for the duration of employment plus an additional 30 years.
 - 5.1.5 Audiometric test records. Retained for the duration of the affected employee's employment.
- 5.2 <u>Access to Records</u>. The company will provide, upon request, these established records, for inspection and copying by any representative of OSHA or the DOL (or state equivalent agencies) for the purpose of carrying out the provisions of the OSHA act, and for statistical compilation.
 - 5.2.1 The log and summary of all recordable occupational injuries and illnesses (OSHA No. 300) will, upon request, be made available to any employee, former employee, and to their representatives for examination and copying in a reasonable manner and at reasonable times. The employee, former employee, and their representatives will have access to the log for any establishment in which the employee is or has been employed.

- 5.3 <u>Reporting of Fatality or Work Related inpatient hospitalization, amputation, or loss of an eye.</u> Within 8 hours after a fatality or within 24 hours of work related inpatient hospitalization, amputation, or loss of an eye, the company will report the accident by telephone. The report will relate the circumstances of the accident, the number of fatalities, and the extent of any injuries. It is understood that the Area OSHA Director may require such additional reports, in writing or otherwise, as he deems necessary concerning the accident. This report is to be made to the nearest office of the Occupational Safety and Health Administration. You may also use the OSHA toll free central number 1-800-321-6742. A listing of the current offices can be accessed on the OSHA website (www.OSHA.gov).
 - CALIFORNIA also requires the reporting for one or more persons admitted to the hospital for treatment (not observation) for a period of more than 24 hours or if an employee loses any member of the body (finger, arm, leg, etc.) or suffers any serious permanent disfigurement.
- 5.4 Change of Ownership. In the event a change of company ownership should occur, the company will notify the buyers of the requirement to preserve those records of the prior ownership, if any are required to be maintained.
- 5.5 Petitions for Recordkeeping Exceptions. In the event the company chooses to maintain records in a manner different from that required, the company will submit a petition containing the information specified by the Regional Commissioner of the Bureau of Labor Statistics in our region.
- 5.6 Employees Not In Fixed Establishments. Recording requirements for company employees engaged in physically dispersed operations (such as construction, installation, repair or service activities) who do not report to any fixed company establishment on a regular basis but are subject to common supervision will be satisfied by:
 - 5.6.1 Maintaining the required records for each operation or group of operations which is subject to common supervision (field superintendent, field supervisor, etc.) in the main office of the company.
 - 5.6.2 Having the address and telephone number of the main office available at each worksite.
 - 5.6.3 Having personnel available at the main office during normal business hours to provide information from the records maintained there by telephone and by mail.
- 5.7 Statistical Safety Program. The company will comply with all requirements to maintain, provide, and use statistical summaries. Upon receipt of an Occupational Injury and Illnesses Survey Form, the company will promptly complete the form in accordance with the instructions contained therein, and return it in accordance with the instructions.
5.8 Recordable Classification

- 5.8.1 Case analysis. The following decision logic will be followed:
 - 5.8.1.1 Determine whether a case occurred (death, injury, illness).
 - 5.8.1.2 Establish that the case was work related.
 - Case resulting from an event or exposure in the work environment. In addition to the physical location, equipment or materials used in the course of an employee's work are also considered part of the employee's work environment.
 - Case resulting from an event or exposure in other locations where employees are engaged in work-related activities or are present as a condition of their employment.
 - 5.8.1.3 Establishing that the case was not work related.
 - The case will be considered not work related when an employee is off duty on our premises as a member of the general public and not as an employee.
 - The case will be considered not work related when an employee has symptoms that merely surface on company premises, but are the result of a non-work related event or exposure off the premises.
 - 5.8.1.3 Determining if the case is an illness or injury.
 - Illness cases. Illnesses usually result from a long-term exposures or cases where the illness does not develop as the result of an instantaneous event. This concept of illness includes acute illnesses which result from exposures of relatively short duration.
 - Injury cases. Injuries are only required to be recorded when they require medical attention (other than first aid). Injuries are usually caused by instantaneous events in the work environment. Cases resulting from anything other than instantaneous events are considered illnesses.
 - Recordable case. If the case is an injury, decide if it is recordable. The following criteria will be used as a basis for recordability. The case will be recorded if the employee has:

- > A work related injury.
- > Medical treatment other than first aid.
- > Has a loss of consciousness.
- > Experiences restriction of work or motion.
- Been transferred to another job.
- 5.8.1.4.1 Illness case. Generally, occupationally induced illness should be recorded as a separate entry on the OSHA 300 (or equivalent) log. However, certain illnesses, such as silicosis, may have prolonged effects which recur over time. The recurrence of these symptoms will not be recorded as new cases on the OSHA forms. The recurrence of symptoms of previous illness may require adjustments of entries on the log for previously recorded illnesses to reflect possible change in the extent or outcome of the particular case. Where it is unclear where an entry should be made, contact the company Safety Officer or the local OSHA office to obtain advice for proper annotation.
- 5.8.2 Categories for Evaluating the Extent of Recordable cases. Once the company decides that a recordable injury or illness has occurred, the case must be evaluated to determine its extent or outcome. There are three categories that OSHA recognizes as recordable cases. Every recordable case will be placed in only one of the following categories:
 - 5.8.2.1 Fatalities. All work fatalities must be recorded, regardless of the time between the injury and the death, or the length of the illness.
 - 5.8.2.2 Lost Workday cases. Lost workday cases will be determined to have occurred when the injured or ill employee experiences either days away from work, days of restricted work activity, or both, for days after the date of the incident. Record the actual number of days away or of restricted work after the date of injury. Note that if a physician requires a set number of days for the employee to be out of work, that number of days must be recorded on the log, even if the employee returns to work earlier than recommended by the physician. Include any weekends (or normally scheduled days off) in the count, if the employee was scheduled to work the next business day and does not report to work. No more than 180 days should be logged, regardless if the employee loses additional time.

5.8.2.3 Cases not resulting in death or lost workdays. These cases consist of the relatively less serious injuries and illnesses which satisfy the criteria for recordability but which do not result in death or require the affected employee to have days away from work or days of restricted work activity beyond the date of injury or onset of illness.

6. Training and Information

None at this time.

7. Definitions.

- > DOL U.S. Department of Labor
- Fatality an incident that results in death
- Hospitalization admittance to a hospital or similar facility where employees are provided with medical care and treatment. Emergency room visits are not considered hospitalization
- Incident an unintended event in the workplace
- > Injury an incident that results in a detrimental physical effect to an employee
- > Illness an incident that results in an acute or chronic health effect to an employee
- Near-miss Incident an incident that could have resulted in an injury, illness or fatality, but did not
- > OSHA U.S. Occupational Safety and Health Administration
- Property Damage an incident that results in damage to buildings, structures, equipment, tools or other tangible assets of the company

OSHA RECORDKEEPING FORMS

The following forms are included as attachments. Click the paperclip icon in the left margin, to access attachments.

300 Log -

The 300 log is used to list recordable incidents, the types and severity that occur at the workplace. (page 10)

300A Form -

The 300A form is a summary of the 300 log that must be posted from February 1 – April 30th of each year for the incident that occurred during the previous calendar year. (page 11)

301 Form -

The 301 form is an "incident report" form that summarizes the details of the incidents. This form may be replaced by your own company's incident or accident reporting form, provided all the information on the 301 form is contained in your company's form. (page 12)

TRAINING ATTENDANCE ROSTER OSHA RECORDKEEPING					
OSHA Recordkeeping Training Includes: Overview of Forms Determining Recordability What is Medical Treatment and First Aid Counting the Days Privacy Reporting to OSHA and the BLS					
<u>INSTRUCTOR:</u>	<u>DATE:</u>	<u>LOCATION</u> :			
NAME (Please Print) FIRST - MI - LAST	SIGNATURI	E			
By signing below, I attest that I have attended the safe by the safety information, procedures, rules, regular instruct	ety training for the topic indicat tions and/or company policy as ed	ed, and will abide presented and			

Name of Interpreter, if utilized:

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

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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.

CERTIFICATION OF HAZARD ASSESSMENT 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	•		Assessmen	t Date:	
Assessment Completed By:			Sigr	nature:	
Joł	o Task	Identified Haz	ard		Required PPE
Examples of Types of P Body Protection: Eye/Face Protection: Fall Protection: Foot Protection: Hearing Protection: Head Protection: Hand Protection: Respiratory Protection:	PE as determined applicable to Chemical Apron, Arm/Sleeve I Suits Safety Glasses w/ Side shield: PFAS, Lanyard, Harness Work Boots, Steel-toe shoes, Ear Muffs, Ear Plugs, Canal C Bump Caps, Hard Hat, Hair ne Neoprene Gloves, Nitrile Glov Dust Mask. Cartridge Respirat	o the Job Hazard: Protection, Fire Resistive Clothing, Weldir s, Goggles, Face Shield, Welding Shield Metatarsal Guards, Leather slip resistant aps es, Electrical Gloves, Heat Resistant Glov or, SCBA/Airline Respirator	ng Apron, Tyvek shoes /es, Leather Gloves	Examples Flying deb Chemical Welding s High heat Sharp obje Potential B Dust Chemical Falling de	<u>o of Hazards (add more specifics to facility operations)</u> : oris splash parks ects (knives, box cutters, wire) Bloodborne Pathogen Exposure fumes/vapors exceeding OSHA PELs bris 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

To The User:

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			
 Personal Protective Equipment Training Includes: Hazards and Workplace Requirements Using and Maintaining PPE Eye and Face Protection Foot Protection Hand Protection Head Protection Hearing Protection Body and Clothing Protection Dust Masks 			
<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 safe by the safety information, procedures, rules, regulat instruct	ety training for the topic indicate tions and/or company policy as ed	ed, and will abide presented and	

Name of Interpreter, if utilized:

PROGRAM OVERVIEW

PORTABLE LADDER SAFETY PROGRAM

 REGULATORY STANDARD:
 OSHA 29 CFR 1910.25 Portable Wood Ladders

 - 29 CFR 1910.26 Portable Metal Ladders

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

^{- 29} CFR 1926.1050-1060

- 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: () Wood () Metal () Fiberglass		
General		Compliant?	Needs Repair
All labels/markings/weight limits on the lad legible.	der are in place and	YES 🗌 NO	
There are no lose or missing steps or rung moved by hand).	s (loose if can be	YES 🗌 NO	
There are no loose nails, screws, bolts, or	other fasteners.	YES NO	
The ladder is not cracked, splintered, split, braces, steps, or rungs.	or broken uprights,	YES 🗌 NO	
The ladder is free from grease, oil, or slipp	ery materials.	YES NO	
The joints between rungs and side rails are moved by hand).	e tight (loose if can be	YES 🗌 NO	
The ladder rungs/steps are tight and corru- metal ladders.	gated or knurled on	YES 🗌 NO	
All movable parts operate freely.		YES NO	
The non-slip bases are not damaged or wo	orn.	YES NO	
Rails are free from cracks/splitting		YES NO	
Hinge spreaders are not loose or bent allo	wing ladder to wobble.	YES NO	
The hinge spreaders are not broken and d loose edges.	o not have sharp or	YES 🗌 NO	
There are no loose, broken, or missing ext	ension locks.	YES NO	
There are no defective locks that do not se is extended.	eat properly when ladder	YES 🗌 NO	
Ladder ropes are not frayed, worn or missi	ing.	YES NO	
Single section ladders do not exceed 30 fe	et in length	YES NO	
Two-section extension ladders do not exce metal ladders and 60 feet in length for woo	eed 48 feet in length for diadders.	YES 🗌 NO	
Ladders with more than two sections do no length.	ot exceed 60 feet in	YES 🗌 NO	
Comments			

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

Name of Interpreter, if utilized:

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

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- 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	YES	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				
Brake lights function				
Mirrors (side and rearview) present and in good				
condition				
Mirrors adjusted for driver				
Vehicle loads and any storage of materials are				
secure				
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	esent:			
Charlitet a gran late d hur				
Checklist completed by:				
Date: I me of Day:				

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

Name of Interpreter, if utilized:

COMPANY SPECIFIC CORRECTIVE ACTIONS					
DATE:	ATE: ASSESSOR:			SUBMITTED TO:	
CONDITION	COMPLIANT	CORRECTED BY	COMPLETION DATE	COMMENTS AND CORRECTIVE ACTION	
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				
	🗌 Yes 🗌 No				

TRAINING ATTENDANCE ROSTER			
TRAINING TOPIC:			
<u>INSTRUCTOR:</u>	<u>DATE:</u>	LOCATION:	
NAME (Please Print) FIRST - MI - LAST	SIGNATUR	E	
By signing below, I attest that I have attended the sate by the safety information, procedures, rules, regulation instruction	ety training for the topic indicat ations and/or company policy as ted	ted, and will abide s presented and	

Name of Interpreter, if utilized: _____

OFFICE SAFETY CHECKLIST

Completed by:	Date:
ITEM	COMPLIANT?
General Conditions	
Are walking surfaces clean, clear of debris, and dry?	🗌 YES 🗌 NO
Are warning signs placed in wet floor areas?	🗌 YES 🗌 NO
Are stairs, steps, handrails, and landings in good condition?	
Is area lighting adequate?	
Is general housekeeping acceptable and storage neat and orderly?	
Are floor mats in good condition?	
Emergency Evacuation	
Does the facility have a written emergency action plan?	
Are employees trained on emergency evacuation procedures?	
Are exit paths clear and unlocked from the inside out?	
Are exits properly identified and lighted?	🗌 YES 🗌 NO
Are doors that could be mistaken for an exit appropriately marked NOT AN EXIT, BASEMENT, STORAGE ROOM, etc.?	🗌 YES 🗌 NO
Are exit doors operable?	
Is emergency lighting operable?	
Does the fire alarm work?	
Has the fire alarm been tested?	🗌 YES 🗌 NO
Back Safety	
Employees are utilizing the correct lifting technique?	🗌 YES 🗌 NO
Equipment, carts, and/or tables are of proper height provided to assist with the prevention of back injuries?	🗌 YES 🗌 NO
Is a buddy system in place to ensure "help" when performing heavy lifting?	🗌 YES 🗌 NO
Ergonomics	
Are workstations configured to prevent common ergonomic problems?	
Chair height allows employees' feet to rest flat on the ground with thighs parallel to floor?	

ITEM	COMPLIANT?
Is the top of computer screen at or slightly below eye level?	🗌 YES 🗌 NO
Is keyboard at elbow height?	
Electrical Safety - General	
All electrical outlets, junction boxes, and other electrical components properly covered?	🗌 YES 🗌 NO
Are panel box doors closed, free from obstruction, all circuits labelled, and all circuit spaces covered?	🗌 YES 🗌 NO
GFCI (Ground Fault Circuit Interrupters) placed on electrical outlets located within 3 feet of water sources?	🗌 YES 🗌 NO
Are extension cords used only for temporary means and not used as permanent wiring?	🗌 YES 🗌 NO
Are multiple plug outlets and use of extension cords kept to a minimum?	
Are portable heating devices UL-listed?	🗌 YES 🗌 NO
Fire Extinguishers/Safety	
Are fire extinguishers provided for the types of materials in areas where they are to be used?	🗌 YES 🗌 NO
Are appropriate fire extinguishers mounted?	🗌 YES 🗌 NO
Are extinguishers free from obstructions or blockage?	
Are all extinguishers serviced, maintained and tagged at intervals not to exceed one year?	
Are all extinguishers fully charged and in their designated places?	

PROGRAM OVERVIEW

SAFETY MEETINGS AND COMMITTEE CHARTER SAFETY PROGRAM

REGULATORY STANDARD: State Regulations – Some states require that companies with 15 or more employees have an active safety committee.

INTRODUCTION

Safety meetings provide the opportunity for employees and supervisors to engage in discussions on a variety of safety topics. Effective meetings promote cooperation and reinforce important safety and health operating philosophies and practices at the company and foster commitment and participation by both employees and management in the company's safety management program.

TRAINING

• Training is recommended for all safety committee members.

ACTIVITIES

- If required, establish a safety committee
- Meet on a regular basis (at least quarterly) to discuss safety issues or concerns appropriate to the workplace
- Ensure notes are taken at committee meetings and actions and activities are documented. Where corrective actions are required, ensure follow up is completed

FORMS

- Safety Committee Task Sheet
- Training Attendance Roster

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- 3. Responsibilities
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- 6. Training and Information
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SAFETY MEETINGS AND COMMITTEE CHARTER SAFETY PROGRAM

- 1. **Purpose.** This program is designed to outline the format and process to enable supervisors, management, or a company safety committee to hold effective safety discussions that provide safety related information, and to hold committee or group meetings centered on safety topics.
- **2. Scope.** Applies to safety related meetings or safety committee meetings held at the company. Several state regulations require that companies with more than 20 employees set up a safety committee.

3. Responsibilities

- 3.1 Management/Supervisors
 - 3.1.1 Support the safety suggestions of the employees, as feasible.
 - 3.1.2 Support the creation of a safety committee.
 - 3.1.3 Communicate with the safety committee chairperson or with supervisors and other management on safety issues and concerns.
 - 3.1.4 Assist in the development and implementation of solutions to safety issues.
 - 3.1.5 Review this program and the status of safety actions taken at least annually.
 - 3.1.6 Hold regularly scheduled discussions with employees on safety topics. Safety discussions should be held with employees:
 - 3.1.6.1 Upon initial job assignment or reassignment. A well-planned and well-executed safety orientation forms the foundation for each individual's future safety and health performance. Each supervisor should ensure that new employees receive a copy of specific safe work practices and procedures, as appropriate to the job or position.
 - 3.1.6.2 When workplace changes occur that require updated information. Process changes, new materials or changes to existing procedures or equipment may prompt a safety discussion on how to safely use or handle the material or equipment.
 - 3.1.6.3 When new jobs or tasks are planned. Discussion involving work being planned should include listing potential hazards, developing suggested "engineering" approaches to reduce risk, identifying safety equipment to be used, and developing basic safe operating procedures.
- 3.1.6.4 When a workplace injury or incident occurs. Discussion should focus on the facts surrounding the incident, the injury, and the various causes that allowed the incident to occur, rather than on the injury or illness itself. Medical privacy concerns may need to be considered during discussions.
- 3.1.6.5 When employee behaviors are noted that require a safety discussion. Discussion of a failure to adhere to a safety procedure should cover why such a behavior is wrong, the potential hazards, and constructive discussion on how to correctly follow procedures.
- 3.1.6.6 When defective tools or equipment are identified (by employees or the manufacturer).
- 3.1.6.7 When regulatory changes require updated information.

3.2 Employees

- 3.2.1 Follow established safety procedures.
- 3.2.2 Report safety issues, concerns or violations to your supervisor.
- 3.2.3 Participate, as needed or required, in safety meetings.
- 3.2.4 Participate, if appropriate, on the safety committee.
- 3.3 Safety Committee (as needed or required)
 - 3.3.1 Meet at least quarterly to discuss safety issues and needs at the company. Monthly meetings are recommended.
 - 3.3.2 Keep discussions pertinent and productive.
 - 3.3.3 Complete any action items assigned.
 - 3.3.4 Perform incident reviews, inspections or audits, if appropriate.
- 3.4 Safety Committee Chairperson (as needed or required)
 - 3.4.1 Maintain a current listing of safety committee membership.
 - 3.4.2 Schedule meetings with committee membership at least quarterly. Monthly meetings are recommended.
 - 3.4.3 Set the discussion topics or agenda for the meeting.
 - 3.4.4 Facilitate the meeting, keeping the discussion pertinent and productive.
 - 3.4.5 Take meeting notes, or designate another member as note-taker.

- 3.4.6 Distribute meeting notes to committee members and, as appropriate, to management.
- 3.4.7 Assure action items assigned at the meetings are tracked and completed.
- 3.4.8 Enlist management assistance, as needed or required.

4. Procedure

- 4.1 Supervisory and Employee Discussions
 - 4.1.1 Supervisors, in conjunction with management and/or the company's Safety Officer or Safety Committee will conduct regular meetings with employees on various safety topics.
 - 4.1.2 The level of detail required to ensure that the information is relevant to the employees is determined by the supervisor.
 - 4.1.3 Safety briefings will be provided at least quarterly. Discussions may be more frequently conducted (i.e. monthly or weekly), based on the type of business and workplace hazards.
 - 4.1.4 Safety discussions may be held as a part of routine group meetings, or as part of routine job inspections, procedure reviews or within job hazard analysis review. In this situation, 10-15 minutes should provide sufficient time for a review of a specific topic or procedure.
 - 4.1.5 Formal meetings devoted solely to safety topics may include:
 - 4.1.5.1 An explanation of the objectives of the meeting or training.
 - 4.1.5.2 A breakdown of the points or part of the procedure, identifying each key step, and the safety measure for each step.
 - 4.1.5.3 Using a demonstration of proper methods rather than a verbal explanation.
- 4.2 Principal Activities of the Safety Committee
 - 4.2.1 Assemble at least quarterly (monthly is recommended) to conduct safety meetings.
 - 4.2.2 Discuss and report on unfinished business or action items from previous meetings.
 - 4.2.3 Discuss new business, issues or concerns.
 - 4.2.4 Maintain records of meetings (notes or meeting minutes are recommended).

- 4.2.5 If appropriate to the business of the company, or at management direction, the following additional duties may be performed by the committee:
 - 4.2.5.1 Direct and monitor group or departmental safety meetings.
 - 4.2.5.2 Direct and monitor employee safety training needs and requirements.
 - 4.2.5.3 Perform or oversee departmental safety inspections.
 - 4.2.5.4 Review accident/injury information and discuss corrective actions.

5. Safety Information

- 5.1 Safety Committee Charter
 - 5.1.1 The safety committee will encourage safety awareness among all employees. It will be established to monitor safety performance, safety inspections, and aid the Safety Officer and management in administering the safety program. The committee is charged to:
 - 5.1.1.1 Discuss strategies to reduce incidents.
 - 5.1.1.2 Assist in implementing corrective or preventive actions to increase safety and reduce hazards.
 - 5.1.1.3 Be aware of conditions in all work areas that can produce injuries.
 - 5.1.1.4 Aid the company in complying with all applicable laws and regulations pertaining to safety.
 - 5.1.1.5 Assist in assuring that no employee is required to work at a job that is not safe or healthful. The safety and health of each employee is of primary importance to the company.
 - 5.1.1.6 Assist management in making recommendations for tools, equipment, and controls for safety and health in keeping with the highest standards.
 - 5.1.1.7 Assist in maintaining a safety and health program conforming to the best management practices of our industry or market segment.
 - 5.1.1.8 Assist in establishing a safety management program that instills the proper attitudes toward injury and illness prevention not only on the part of employees, but also between each employee and his or her co-workers.

- 5.2 Safety Committee Composition
 - 5.2.1 The safety committee is, primarily, a voluntary group. There are occasions when management may appoint members.
 - 5.2.1.1 It is recommended that committee membership be rotated among different employees. Recommended term of service is one year.
 - 5.2.2 The safety committee should consist of at least three members from the employee base, and one member of supervision or management. Greater membership may be based on the size of the company, or the types of hazards encountered in the workplace.
 - 5.2.3 Each department or work area should be represented on the committee.
 - 5.2.4 A member to take notes or meeting minutes should be designated or elected.
 - 5.2.5 A committee chairperson should be elected by the committee. The supervisory/management member should not be the committee chairperson. The Safety Officer may be present to offer advice or to act as committee chairperson or note-taker if these designated people are absent.
- 5.3 Safety Committee Meeting Rules
 - 5.3.1 Safety committee meetings will be conducted in such a manner as to foster a productive work environment. The principal goal being to determine solutions to safety issues affecting our employees. The following ground rules apply.
 - 5.3.1.1 Notes or meeting minutes will be taken at each meeting. Meeting minutes should be distributed to each member of the committee and to members of management, as appropriate.
 - 5.3.1.2 Time limits may be set for each issue or topic, in order to establish and maintain a productive course of action. Discussion time limits on each safety topic will be typically kept to a 20 minute time limit.
 - 5.3.1.3 Action items or subcommittees may be formed when an issue cannot be resolved in a reasonable amount of time. Investigation of an issue and/or development of recommendations may be required, and timeframes may be established for action item completion. Action items of this nature will be classified as "old business" and integrated into the next Safety Committee Meeting as appropriate. Where issues can not be reasonably resolved, company management will be consulted to assist in the issue resolution.

- 5.3.1.4 Safety issues may be classified and prioritized. All priority one issues will be immediately addressed by company management and supervisors. Corrective and preventive actions may be reviewed by the committee, but reporting of the issue will be immediate upon discovery.
 - 5.3.1.4.1 *Priority 1 Hazards* are the most serious type of unsafe condition or unsafe work practice that could cause loss of life, permanent disability, the loss of a body part (amputation or crippling injury), or extensive loss of structure, equipment, or material.
 - 5.3.1.4.2 *Priority 2 Hazards* are unsafe conditions or work practices that could cause serious injury, industrial illness, or disruptive property damage.
 - 5.3.1.4.3 *Priority 3 Hazards* are unsafe conditions or work practices that might cause a recordable injury or industrial illness or non-disruptive property damage.
 - 5.3.1.4.4 *Priority 4 Hazards* are minor conditions, a housekeeping item or unsafe work practice infraction with little likelihood of injury or illness other than perhaps a first-aid case.
- 5.3.1.5 Safety issue resolution will be determined based on the following decision tier: Engineering controls will be considered as a first priority (equipment, guards, or process design); Administrative controls will considered as a second priority (written procedures, restriction of exposure time, substitution of a less-hazardous material); Personal Protective Equipment (PPE) will be considered as a third and last priority.

6. Training and Information

- 6.1 Safety Committee Members
 - 6.1.1 Members of the committee may be required to attend additional safety-related training, as appropriate to the activities of the committee. Such training may include: accident investigation techniques, hazard recognition, and auditing/inspection methods.
- 6.2 Supervisors
 - 6.2.1 Supervisors may be required to attend training, as appropriate to the hazards encountered by their employees in the work area. At a minimum, supervisors should have a basic understanding of accident investigation techniques, hazard recognition, and auditing/inspection methods.

7. Definitions

> None at this time

SAFETY COMMITTEE TASK SHEET			
SAFETY MEETING DATE: S	SUBCOMMITTEE T	ASK TITLE:	
ASSIGN		MITTEE MEM	IBERS
MEMBER:	DEPARTMEN	T:	PHONE:
MEMBER:	DEPARTMEN	T:	PHONE:
MEMBER:	DEPARTMEN	T:	PHONE:
MEMBER:	DEPARTMEN	T:	PHONE:
Supervisor Notified: Related	Operating Proced	lures Reviewed:	⊥ All Affected Employees Notified: □ Yes □ No Date
СОММ	ITTEE NARR	ATIVE OF TAS	SKING
	TIAL FINDING	S AND RECO	MMENDATIONS
DATE SUBMITTED TO SAFETY COMI	MITTEE:	SAFETY COMMIT	TEE POINT OF CONTACT:

SAFETY COMMITTEE ACTIONS			
INITIAL ACTION(s)			
NARRATIVE OF INITIAL ACTION(s) TAKEN			
FOI	LLOW-UP AC	TION(s)	
RESPONSIBLE PERSON:		PHONE:	DATE:
RECOMMENDATIONS:			
ESTIMA	TED COMPLE	TION DATE:	
RESPONSIBLE PERSON:		PHONE:	DATE:
RECOMMENDATIONS:			
Т		ETED	
RESPONSIBLE PERSON:		PHONE:	DATE:
SUMMARY OF ACTIONS TAKEN:			
TASK CLOSURE			
I acknowledge that I have investigated the	subcommittee task	ing detailed in this r	eport and have taken the
necessary steps to ensure correction of safety deficiencies noted.			
Name:		Signature:	
Title:		Date:	Time:
REPORT FORM RETENT		1	ATTACHMENTS
Permanent Retention File:	Location:		*Yes D No D
Date Filed:	Filed By:		*See Following Pages

TRAINING ATTENDANCE ROSTER SAFETY COMMITTEE			
 Safety Committee Training Includes: Purpose of a Committee Positions and Responsibilities Charter and Meeting Rules Accident Investigationand Inspection Reporting Hazards Leading and Participating in Meetings Job Hazard Analysis Methods 			
<u>INSTRUCTOR:</u>	<u>DATE:</u>	<u>LOCATION</u> :	
NAME (Please Print) FIRST - MI - LAST	SIGNATURI	E	
By signing below, I attest that I have attended the safe by the safety information, procedures, rules, regular instruct	ety training for the topic indicat tions and/or company policy as ed	ed, and will abide s presented and	

Name of Interpreter, if utilized: _____

PROGRAM OVERVIEW

STAIRWAY AND FIXED-LADDER INDUSTRIAL SAFETY PROGRAM

REGULATORY STANDARD: 29 C

29 CFR - 1910.24 Fixed Industrial Stairs - 1910.27 Fixed Ladder

INTRODUCTION: Fixed ladder systems and stairways must be evaluated to identify potential deficiencies and associated hazards. Information concerning these hazards must be communicated to employees, and appropriate procedures and protective measures for employees established.

TRAINING:

- Employees will be informed in the recognition of hazards for fixed ladder use.
- Inspectors of fixed ladders will understand the nature of fall hazards, the system requirements, and intended load-carrying capacities of fixed ladders.

ACTIVITIES:

- Implement, communicate, and enforce stairway and fixed-ladder safety policies
- Ensure fixed ladders and stairs are maintained in good, useable condition, free from obstacles, storage and debris
- Ensure any new or existing installations meet the regulatory requirements for strength, durability, rung and cage spacing, etc.
- Provide equipment for lifting or lowering materials and equipment to ensure safe use of fixed ladders
- Provide adequate lighting

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

Stairway and Fixed-Ladder Industrial Safety Program

- 1. **Purpose.** The company will ensure that all potential hazards regarding stairways and fixedladders within our facility are evaluated for potential deficiencies and any associated potential hazards they may present. The company will review and evaluate this safety program:
 - 1.1 On an annual basis or more frequently, as required.
 - 1.2 When changes occur to the governing regulatory statutes that prompt revision of this document.
 - 1.3 When facility operational changes occur that require a revision of this document.
- **2. Scope.** This program applies to any existing or new fixed ladders or stairways at company facilities.

3. Responsibilities.

- 3.1 Management/Supervisors:
 - 3.1.1 Ensure fixed ladders and stairs are maintained in good, useable condition.
 - 3.1.2 Ensure stairways are maintained free from obstacles, storage and debris.
 - 3.1.3 Ensure any new or existing installations meet the regulatory requirements for strength, durability, rung and cage spacing, etc.
 - 3.1.4 Provide equipment for lifting or lowering materials and equipment to ensure safe use of fixed ladders.
- 3.2 Employees:
 - 3.2.1 Bring any deficiencies or hazardous conditions to the attention of management or your supervisor.
 - 3.2.2 Assist, as needed or required, in the inspection of fixed ladders and stairways.
 - 3.2.3 Maintain stairways and areas around fixed ladders in a clean and neat condition to help ensure their safe use.
- 3.3 Safety Officer (as needed or required):
 - 3.3.1 Assist in the development and implementation of this program.

4. Procedure.

- 4.1 Fixed Industrial Stairs Safety Policy:
 - 4.1.1 All stairways will be kept clean, orderly, and free of known hazards.

- 4.1.2 Cleaning requirements. To facilitate the cleaning process, all stairways will be kept free from protruding nails, splinters, holes, or loose boards or other hindrances that would prevent efficient maintenance.
 - 4.1.2.1 Stairways leading to work stations will be maintained in a clean and, so far as possible, a dry condition. Where wet processes are used drainage will be maintained and false floors, platforms, mats, or other dry standing places will be provided where practicable.
 - 4.1.2.2 Will be kept free of obstacles at all times. Any employee finding an emergency route blocked should immediately report the condition to management or supervisors (or the company Safety Officer) for correction. Exit lights and signs will also be maintained in proper condition at all times and immediately reported if deficient.
- 4.1.3 Sufficient illumination will be provided in all areas at all times especially where stairways and ladders are in use. Employees discovering lighting deficiencies will report them to management or supervisors (or the company Safety Officer) for correction.
- 4.1.4 Ladder maintenance. Supervisors will ensure that Ladder under their control are properly maintained and kept in a clean and orderly manner.
- 4.2 Metal Ladder Safety Policy:
 - 4.2.1 To insure safety and serviceability the following precautions concerning the care and use of metal Ladder will be observed:
 - 4.2.1.1 Care of metal Ladder. The following safety precautions will be observed in connection with the care of metal Ladder:
 - 4.2.1.1.1 Ladder must be maintained in good usable condition at all times.
 - 4.2.1.1.2 If a ladder is involved in any of the following, immediate inspection is necessary:
 - 4.2.1.1.2.1 If Ladders tip or components are defective, 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.
 - 4.2.1.1.2.2 If ladder is exposed to oil and grease, components should be cleaned of oil, grease, or slippery materials. This can easily be done with a solvent or steam cleaning.

- 4.2.2 Ladder having defects are to be marked and blocked off until repaired by either maintenance department or the manufacturer.
- 4.2.3 When ascending or descending, the climber must face the ladder.

5. Safety Information.

- 5.1 Fixed Industrial Stairs:
 - 5.1.1 Fixed stairs will be provided for access from one structure level to another where operations necessitate regular travel between levels and for access to operating platforms at any equipment which requires attention routinely during operations. Fixed stairs will also be provided where access to elevations is daily or at each shift for such purposes as gauging, inspection, regular maintenance, etc. Fixed stairs will also be provided where access to elevations is daily or at each shift for such work that may expose employees to acids, caustics, gases, other harmful substances, or for which purposes the carrying of tools or equipment by hand is normally required.
 - 5.1.2 Spiral stairways. Spiral stairways will not be constructed or used except for special limited usage and secondary access situations where it is not practical to provide a conventional stairway.
 - 5.1.3 Stair strength. Fixed stairways will be designed and constructed to carry a load of five times the normal live load anticipated but never of less strength than to carry safely a moving concentrated load of 1,000 pounds.
 - 5.1.4 Stair width. Fixed stairways will have a minimum width of 22 inches.
 - 5.1.5 Angle of stairway rise. Fixed stairs will be installed at angles to the horizontal of between 30 and 50. Any uniform combination of rise/tread dimensions may be used that will result in a stairway at an angle to the horizontal within the permissible range. Table D-1 (29 CFR 1910.24) gives general rise/tread dimensions which will produce a stairway within the permissible range, stating the angle to the horizontal produced by each combination.

Angle to	<u>Rise (in</u>	<u>Tread run (in</u>	
<u>horizontal</u>	inches)	inches)	
30 35'	6 1⁄2	11	
32 08'	6 ³ ⁄4	10 ¾	
33 41'	7	10 ½	
35 16'	7 1⁄4	10 ¼	
36 52'	7 1/2	10	
38 29'	7 ³ ⁄4	9 ³ ⁄ ₄	
40 08'	8	9 1/2	
41 44'	8 1/4	9 1/4	
43 22'	8 1/2	9	
45 00'	8 ³ ⁄ ₄	8 ³ ⁄ ₄	
46 38'	9	8 1/2	
48 16'	9 1⁄4	8 1⁄4	
49 54'	9 1/2	8	

Table D-1 (29 CFR 1910.24)

- 5.1.6 Stair treads. All treads will be reasonably slip-resistant and the nosings will be of nonslip finish. Welded bar grating treads without nosings are acceptable providing the leading edge can be readily identified by personnel descending the stairway and provided the tread is serrated or is of definite nonslip design. Rise height and tread width will be uniform throughout any flight of stairs including any foundation structure used as one or more treads of the stairs.
- 5.1.7 Stairway platforms. Stairway platforms will be no less than the width of a stairway and a minimum of 30 inches in length measured in the direction of travel.
- 5.1.8 Railings and handrails. Standard railings will be provided on the open sides of all exposed stairways and stairway platforms. Handrails will be provided on at least one side of closed stairways preferably on the right side descending. Stair railings and handrails will be installed in accordance with the provisions of 29 CFR 1910.23.
 - 5.1.8.1 A standard railing consists of a top rail, intermediate or mid-rail rail, and posts, and has a vertical height of approximately 42 inches from the standing surface. Mid-rails are located approximately halfway between the top rail and the standing surface. Rails must be smooth and may not project or overhang posts to create a hazard.
- 5.1.9 Vertical clearance. Vertical clearance above any stair tread to an overhead obstruction will be at least 7 feet measured from the leading edge of the tread.
- 5.2 Fixed Ladders:
 - 5.2.1 General
 - 5.2.1.1 The minimum design live load will be a single concentrated load of 200 pounds.
 - 5.2.1.2 The number and position of additional concentrated live-load units of 200 pounds each as determined from anticipated usage of the ladder will be considered in the design.
 - 5.2.1.3 The live loads imposed by persons occupying the ladder will be considered to be concentrated at such points as will cause the maximum stress in the structural member being considered.
 - 5.2.1.4 The weight of the ladder and attached appurtenances together with the live load will be considered in the design of rails and fastenings.
 - 5.2.2 Rungs and Cleats.
 - 5.2.2.1 All rungs will have a minimum diameter of three-fourths inch for metal Ladder and a minimum diameter of 1 1/8 inches for wood ladder.

- 5.2.2.2 The distance between rungs, cleats, and steps will not exceed 12 inches and will be uniform throughout the length of the ladder.
- 5.2.2.3 The minimum clear length of rungs or cleats will be 16 inches.
- 5.2.2.4 Rungs, cleats, and steps will be free of splinters, sharp edges, burrs, or projections which may be a hazard.
- 5.2.2.5 The rungs of an individual-rung ladder will be so designed that the foot cannot slide off the end.
- 5.2.3 Components and Construction.
 - 5.2.3.1 Side rails. Side rails, which might be used as a climbing aid, will be of such cross sections as to afford adequate gripping surface without sharp edges, splinters, or burrs.
 - 5.2.3.2 Fastenings. Fastenings will be an integral part of fixed ladder design.
 - 5.2.3.3 Splices. All splices and connections will have smooth transition with original members and with no sharp or extensive projections.
 - 5.2.3.4 Electrolytic action. Adequate means will be employed to protect dissimilar metals from electrolytic action when such metals are joined.
 - 5.2.3.5 Welding. All welding will be in accordance with the "Code for Welding in Building Construction" (AWSD1.0-1966).
- 5.2.4 Protection from Deterioration.
 - 5.2.4.1 Metal Ladder and appurtenances will be painted or otherwise treated to resist corrosion and rusting when location demands. Ladder formed by individual metal rungs imbedded in concrete, which serve as access to pits and to other areas under floors, are frequently located in an atmosphere that causes corrosion and rusting. To increase rung life in such atmosphere, individual metal rungs will have a minimum diameter of 1 inch or will be painted or otherwise treated to resist corrosion and rusting.
 - 5.2.4.2 Wood Ladder, when used under conditions where decay may occur, will be treated with a nonirritating preservative and the details will be such as to prevent or minimize the accumulation of water on wood parts.
 - 5.2.4.3 When different types of materials are used in the construction of a ladder, the materials used will be so treated as to have no deleterious affect one upon the other.

- 5.2.5 Clearance.
 - 5.2.5.1 Climbing side. On fixed Ladder, the perpendicular distance from the centerline of the rungs to the nearest permanent object on the climbing side of the ladder will be the following with minimum clearances for intermediate pitches varying between these two limits in proportion to the slope:
 - 5.2.5.1.1 36 inches for a pitch of 76 degrees
 - 5.2.5.1.2 30 inches for a pitch of 90 degrees
 - 5.2.5.2 Ladder without cages or wells. A clear width of at least 15 inches will be provided each way from the centerline of the ladder in the climbing space except when cages or wells are necessary.
 - 5.2.5.3 Clearance in back of ladder. The distance from the centerline of rungs, cleats, or steps to the nearest permanent object in back of the ladder will be not less than 7 inches except when unavoidable obstructions are encountered; then minimum clearances as shown in 29 CFR 1910.27, figure D-3, will be provided.
 - 5.2.5.4 Clearance in back of grab bar. The distance from the centerline of the grab bar to the nearest permanent object in back of the grab bars will be not less than 4 inches. Grab bars will not protrude on the climbing side beyond the rungs of the ladder which they serve.
 - 5.2.5.5 Step-across distance. The step-across distance from the nearest edge of ladder to the nearest edge of equipment or structure will be not more than 12 inches or less than 2 1/2 inches (29 CFR 1910.27, fig. D-4).
 - 5.2.5.6 Hatch cover. Counterweighted hatch covers will open a minimum of 60 degrees from the horizontal. The distance from the centerline of rungs or cleats to the edge of the hatch opening on the climbing side will be not less than 24 inches for offset wells or 30 inches for straight wells. There will be not protruding potential hazards within 24 inches of the centerline of rungs or cleats. Any such hazards within 30 inches of the centerline of the rungs or cleats will be fitted with deflector plates placed at an angle of 60 degrees from the horizontal as indicated in 29 CFR 1910.27, figure D-5. The relationship of a fixed ladder to an acceptable counterweighted hatch cover is illustrated in 29 CFR 1910.27, figure D-6.
- 5.2.6 Special Requirements for Cages or Wells.
 - 5.2.6.1 Cages or wells (except on chimney Ladder) will be built, as shown on the applicable drawings, covered in detail in 29 CFR 1910.27, figures D-7, D-8, and D-9, or of equivalent construction.

- 5.2.6.2 Cages or wells conforming to the dimensions shown in 29 CFR 1910.27, figures D-7, D-8, and D-9 will be provided on Ladder of more than 20 feet to a maximum unbroken length of 30 feet.
- 5.2.6.3 Cages will extend down the ladder to a point not less than 7 feet or more than 8 feet above the base of the ladder, with bottom flared not less than 4 inches, or portion of cage opposite ladder will be carried to the base.
- 5.2.6.4 Cages will not extend less than 27 or more than 28 inches from the centerline of the rungs of the ladder. Cage will not be less than 27 inches in width. The inside will be clear of projections. Vertical bars will be located at a maximum spacing of 40 degrees around the circumference of the cage; this will give a maximum spacing of approximately 9 1/2 inches, center to center.
- 5.2.6.5 Ladder wells will have a clear width of at least 15 inches measured each way from the centerline of the ladder. Smooth-walled wells will be a minimum of 27 inches from the centerline of rungs to the well wall on the climbing side of the ladder. Where other obstructions on the climbing side of the ladder exist, there will be a minimum of 30 inches from the centerline of the rungs.

6. Training and Information.

- 6.1 Employees or other designated persons will be trained, as needed or required, in the inspection of fixed ladders and stairways.
- 6.2 Employees, as needed or required, will be trained or informed of the safe use and maintenance of fixed ladders and stairways.

7. Definitions.

- Cage A cage is a guard that may be referred to as a cage or basket guard which is an enclosure that is fastened to the side rails of the fixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person who must climb the ladder.
- Cleats Cleats are ladder cross-pieces of rectangular cross-section placed on edge on which a person may step in ascending or descending.
- Fastenings A fastening is a device to attach a ladder to a structure, building, or equipment.
- Fixed ladder A fixed ladder is a ladder permanently attached to a structure, building, or equipment.
- Grab bars Grab bars are individual handholds placed adjacent to or as an extension above Ladder for the purpose of providing access beyond the limits of the ladder.

- Handrail A single bar or pipe supported on brackets from a wall or partition to provide a continuous handhold for persons using a stair.
- Individual-rung ladder An individual-rung ladder is a fixed ladder each rung of which is individually attached to a structure, building, or equipment.
- Ladder A ladder is an appliance usually consisting of two side rails joined at regular intervals by cross-pieces called steps, rungs, or cleats, on which a person may step in ascending or descending.
- Ladder safety device A ladder safety device is any device, other than a cage or well, designed to eliminate or reduce the possibility of accidental falls and which may incorporate such features as life belts, friction brakes, and sliding attachments.
- Nose, nosing That portion of a tread projecting beyond the face of the riser immediately below.
- Open riser The air space between the treads of stairways without upright members (risers).
- Pitch Pitch is the included angle between the horizontal and the ladder, measured on the opposite side of the ladder from the climbing side.
- > Platform An extended step or landing breaking a continuous run of stairs.
- Rail ladder A rail ladder is a fixed ladder consisting of side rails joined at regular intervals by rungs or cleats and fastened in full length or in sections to a building, structure, or equipment.
- Railing A vertical barrier erected along exposed sides of stairways and platforms to prevent falls of persons. The top member of railing usually serves as a handrail.
- *Rise* The vertical distance from the top of a tread to the top of the next higher tread.
- Riser The upright member of a step situated at the back of a lower tread and near the leading edge of the next higher tread.
- Rungs Rungs are ladder cross-pieces of circular or oval cross-section on which a person may step in ascending or descending.
- Side-step ladder A side-step ladder is one from which a man getting off at the top must step sideways from the ladder in order to reach the landing.
- Stairs, stairway A series of steps leading from one level or floor to another, or leading to platforms, pits, boiler rooms, crossovers, or around machinery, tanks, and other equipment that are used more or less continuously or routinely by employees, or only occasionally by specific individuals. A series of steps and landings having three or more risers constitutes stairs or stairway.
- Steps Steps are the flat cross-pieces of a ladder on which a person may step in ascending or descending.

- Through ladder A through ladder is one from which a man getting off at the top must step through the ladder in order to reach the landing.
- *Tread* The horizontal member of a step.
- Tread run The horizontal distance from the leading edge of a tread to the leading edge of an adjacent tread.
- Tread width The horizontal distance from front to back of tread including nosing when used.
- Well A well is a permanent complete enclosure around a fixed ladder, which is attached to the walls of the well. Proper clearances for a well will give the person who must climb the ladder the same protection as a cage.

TRAINING ATTENDANCE ROSTER PORTABLE AND FIXED LADDERS AND MOBILE STAIRS

Fixed Ladder Safe Use Requirements are part of the Portable Ladder Safety Training.

Portable Ladders and Mobile Stairs Training Includes:

- General Ladder Safety Requirements
- Inspection of Equipment
- Portable Step Ladder Use
- Portable Rung Ladder Use
- Fixed Ladder Use
- Mobile Stairs Use

INSTRUCTOR:	<u>DATE:</u>	LOCATION:
NAME (Please Print)	SIGNATURI	-
FIRST - MI - LAST	SIGNATORI	-
By signing below, I attest that I have attended the safe	ety training for the topic indicat	ed, and will abide
by the safety information, procedures, rules, regulated	tions and/or company policy as	presented and
instruct	ed	

Name of Interpreter, if utilized: _

PROGRAM OVERVIEW

WALKING AND WORKING SURFACES SAFETY PROGRAM

REGULATORY STANDARD: OSHA - 29 CFR 1910.21 - 23

INTRODUCTION

General requirements for: aisles, passageways, housekeeping, stairs and guard-rails. It also addresses floor-loading protection and protecting open sided floors and platforms. This program targets renovation and construction areas where walking and working surface hazards are more likely to be present.

TRAINING

- Employees, supervisors and staff members should be informed of the proper materials handling and storage procedures to ensure that such materials do not cause hazardous situations to occur
- Employees providing construction, repair and renovation work should be trained in the proper use of coverings, guardrail system and other requirements to ensure the appropriate level of protection and safety

ACTIVITIES

- Ensure aisles and passageways are of the proper width and appropriately maintained
- Provide covers and guardrails for floor, wall openings
- Ensure hazardous areas (open pits, vats or trenches) have appropriate guardrail systems
- Provide guardrail systems for any open-sided platform, floor or runway
- Ensure floors are not overloaded, and that load limits are indicated
- Ensure stairways have appropriate railings
- Enforce housekeeping rules
- Ensure materials are properly stored and not obstructing aisles, passageways, stairways or other areas where they could cause a hazard
- Encourage employees to report unsafe conditions

FORMS

Training Attendance Roster

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

WALKING/WORKING SURFACE INDUSTRIAL SAFETY PROGRAM

- 1. **Purpose.** This safety program is designed to establish clear company goals and objectives with regard to walking and working surfaces and will be communicated to all required personnel. Walking and working surfaces include stairways, aisles, platforms, runways and areas where floor or wall openings could present a hazard to employees. The company will review and evaluate this safety program:
 - 1.1 On an annual basis, or more frequently as needed.
 - 1.2 When changes occur to 29 CFR 1910.21 23 that prompt revision of this document
 - 1.3 When facility operational changes occur that require a revision of this document
- 2. Scope. This program encompasses the total workplace or job site regardless of the number of workers employed or the number of work shifts.

3. Responsibilities

- 3.1 Management/Supervisors:
 - 3.1.1 Ensure aisles and passageways are of the proper width and appropriately maintained.
 - 3.1.2 Provide covers and guardrails for floor, wall openings.
 - 3.1.3 Ensure hazardous areas (open pits, vats or trenches) have appropriate guardrail systems.
 - 3.1.4 Provide guardrail systems for any open-sided platform, floor or runway.
 - 3.1.5 Ensure floors are not overloaded.
 - 3.1.6 Ensure stairways have appropriate railings.
 - 3.1.7 Enforce housekeeping rules.
 - 3.1.8 Ensure materials are properly stored and not obstructing aisles, passageways, stairways or other areas where they could cause a hazard.
 - 3.1.9 Encourage employees to report unsafe conditions.
- 3.2 Employees
 - 3.2.1 Report unsafe conditions to your supervisor immediately.
 - 3.2.2 Maintain safe storage requirements

3.2.3 Maintain housekeeping in work areas.

4. Procedure

- 4.1 Aisles and Passageways
 - 4.1.1 Where mechanical handling equipment is used sufficient safe clearances will be maintained for aisles, at loading docks, through doorways, and wherever turns or passage must be made. Aisles and passageways shall be kept clear and in good repair with no obstruction across or in aisles that could create a hazard.
 - 4.1.2 Permanent aisles and passageways shall be appropriately marked.
- 4.2 Covers and Guardrails
 - 4.2.1 Covers and/or guardrails shall be provided to protect personnel from the hazards of open pits, tanks, vats, ditches, etc. Work areas will be properly guarded, covered, cordoned off, or marked to prevent injury, including:
 - 4.2.1.1 Stairways unguarded/containing holes.
 - 4.2.1.2 Ladder way floor openings unguarded.
 - 4.2.1.3 Hatchway and chute floor opening unguarded.
 - 4.2.1.4 Skylight floor openings unguarded.
 - 4.2.1.5 Pit and trapdoor floor openings unguarded.
 - 4.2.1.6 Manhole floor openings unguarded.
 - 4.2.1.7 Temporary floor openings unguarded.
 - 4.2.1.8 Floor holes/openings unguarded.
 - 4.2.1.9 Chute wall openings unprotected.
 - 4.2.1.10 Window wall openings unprotected.
 - 4.2.1.11 Temporary wall openings unprotected.
 - 4.2.1.12 Open-sided floor or platforms unguarded.
 - 4.2.1.13 Runways unprotected.
 - 4.2.1.14 Stairways unprotected.

- 4.3 Floor Loading Protection
 - 4.3.1 Whenever loads or single items exceeding 350lbs are to be placed on floor areas or roofing structures, employees will determine the safe load capacity before taking this action.
 - 4.3.2 Safe floor loading capacities will be marked on plates of approved design which shall be supplied and securely affixed in a conspicuous place in each space to which they relate.
 - 4.3.3 Such plates will not be removed or defaced. If lost, removed, or defaced, they will be reported to the Safety Officer and replaced immediately.
 - 4.3.4 All employees must note that it is unlawful to place, or cause, or permit to be placed on any floor or roof of a building or other structure a load greater than that for which such floor or roof is approved by the building official.
- 4.4 Guarding Floor/Wall Openings and Holes
 - 4.4.1 Protection for floor openings
 - 4.4.1.1 Stairway floor openings. Stairway floor openings shall be guarded by a standard railing constructed in accordance with 29 CFR 1910.23, paragraph (e). The railing shall be provided on all exposed sides (except at entrances to stairways). For infrequently used stairways where traffic across the opening prevents the use of a fixed standard railing (as when located in aisle spaces, etc.), the guard shall consist of a hinged floor opening cover of standard strength and construction and removable standard railings on all exposed sides (except at entrance to stairway).
 - 4.4.1.2 Ladder-way floor openings. Ladder-way floor openings or platforms shall be guarded by a standard railing with standard toeboard on all exposed sides (except at entrance to opening) with the passage through the railing either provided with a swinging gate or so offset that a person cannot walk directly into the opening.
 - 4.4.1.3 Hatchway and chute floor openings. Hatchway and chute floor opening shall be guarded by one of the following:
 - 4.4.1.3.1 Hinged floor opening cover of standard strength and construction equipped with standard railings or permanently attached thereto so as to leave only one exposed side. When the opening is not in use the cover shall be closed or the exposed side shall be guarded at both top and intermediate positions by removable standard railings.

- 4.4.1.3.2 A removable railing with toe-board on not more than two sides of the opening and fixed standard railings with toe-boards on all other exposed sides. The removable railings shall be kept in place when the opening is not in use. Where operating conditions necessitate the feeding of material into any hatchway or chute opening protection shall be provided to prevent a person from falling through the opening.
- 4.4.1.4 Skylight floor openings. Skylight floor openings and holes shall be guarded by a standard skylight screen or a fixed standard railing on all exposed sides.
 - 4.4.1.4.1 Skylight screens shall be of such construction and mounting that they are capable of withstanding a load of at least 200 pounds applied perpendicularly at any one area on the screen. They shall also be of such construction and mounting that under ordinary loads or impacts, they will not deflect downward sufficiently to break the glass below them. The construction shall be of grillwork with openings not exceeding 4 inches long or of slat-work with openings not more than 2 inches wide with length unrestricted.
- 4.4.1.5 Pit and trapdoor floor openings. Pit and trapdoor floor openings, infrequently used, shall be guarded by a floor opening cover of standard strength and construction. While the cover is not in place, the pit or trap opening shall be constantly attended by someone or shall be protected on all exposed sides by removable standard railings.
- 4.4.1.6 Manhole floor openings. Manhole floor openings shall be guarded by a standard manhole cover which need not be hinged in place. While the cover is not in place, the manhole opening shall be constantly attended by someone or shall be protected by removable standard railings.
- 4.4.1.7 Temporary floor openings. Temporary floor openings shall have standard railings, or shall be constantly attended by someone.
- 4.4.1.8 Floor holes. Floor holes into which persons can accidentally walk shall be guarded by either:
 - 4.4.1.8.1 A standard railing with standard toe-board on all exposed sides
 - 4.4.1.8.2 A floor-hole cover of standard strength and construction. While the cover is not in place, the floor hole shall be constantly attended by someone or shall be protected by a removable standard railing

- 4.4.1.8.3 Every floor hole into which persons cannot accidentally walk (on account of fixed machinery, equipment, or walls) shall be protected by a cover that leaves no openings more than 1 inch wide. The cover shall be securely held in place to prevent tools or materials from falling through
- 4.4.1.9 Floor hole covers. Floor opening covers may be of any material that meets the following strength requirements:
 - 4.4.1.9.1 Trench or conduit covers and their supports, when located in roadways, shall be designed to carry a truck rear-axle load of at least 20,000 pounds.
 - 4.4.1.9.2 Manhole covers and their supports, when located in roadways, shall comply with local standard highway requirements, if any; otherwise they shall be designed to carry a truck rear-axle load of at least 20,000 pounds.
 - 4.4.1.9.3 The construction of floor opening covers may be of any material that meets the strength requirements. Covers projecting not more than 1 inch above the floor level may be used providing all edges are chamfered to an angle with the horizontal of not over 30 degrees. All hinges, handles, bolts, or other parts shall set flush with the floor or cover surface.
- 4.4.1.10 Stairway doors. Where doors or gates open directly on a stairway a platform shall be provided and the swing of the door shall not reduce the effective width to less than 20 inches.
- 4.4.2 Protection for wall openings and holes
 - 4.4.2.1 Wall openings. Wall openings from which there is a drop of more than 4 feet shall be guarded by one of the following:
 - 4.4.2.1.1 Rail, roller, picket fence, half door, or equivalent barriers. Where there is exposure below to falling materials, a removable toe board or the equivalent shall also be provided. When the opening is not in use for handling materials, the guard shall be kept in position regardless of a door on the opening. In addition, a grab handle shall be provided on each side of the opening with its center approximately 4 feet above floor level and of standard strength and mounting.
 - 4.4.2.1.2 Extension platforms onto which materials can be hoisted for handling will have side rails or equivalent guards of standard specifications.

- 4.4.2.1.3 Wall opening barriers (rails, rollers, picket fences, and half doors) shall be of such construction and mounting that, when in place at the opening, the barrier is capable of withstanding a load of at least 200 pounds applied in any direction (except upward) at any point on the top rail or corresponding member.
- 4.4.2.1.4 Wall opening grab handles shall be not less than 12 inches in length and shall be so mounted as to give 3 inches clearance from the side framing of the wall opening. The size, material, and anchoring of the grab handle shall be such that the completed structure is capable of withstanding a load of at least 200 pounds applied in any direction at any point of the handle.
- 4.4.2.1.5 Wall opening screens shall be of such construction and mounting that they are capable of withstanding a load of at least 200 pounds applied horizontally at any point on the near side of the screen. They may be of solid construction, of grillwork with openings not exceeding 8 inches long, or of slat-work with openings not more than 4 inches wide with length unrestricted.
- 4.4.2.2 Chute wall openings. Chute wall openings from which there is a drop of more than 4 feet shall be guarded by one or more barriers or as required by the conditions.
- 4.4.2.3 Window wall openings. Window wall openings at a stairway landing, floor, platform, or balcony from which there is a drop of more than 4 feet and where the bottom of the opening is less than 3 feet above the platform or landing shall be guarded by standard slats, standard grill work, or standard railing. Where the window opening is below the landing or platform, a standard toe board shall be provided.
- 4.4.2.4 Temporary wall openings. Temporary wall openings shall have adequate guards but these need not be of standard construction.
 - 4.4.2.4.1 Where there is a hazard of materials falling through a wall hole, and the lower edge of the near side of the hole is less than 4 inches above the floor, and the far side of the hole more than 5 feet above the next lower level, the hole shall be protected by a standard toe-board, or an enclosing screen either of solid construction.

- 4.5 Protection of Open-Sided Floors, Platforms, and Runways
 - 4.5.1 Open-sided floors or platforms. Open-sided floors or platforms 4 feet or more above adjacent floor or ground level shall be guarded by a standard railing on all open sides except where there is entrance to a ramp, stairway, or fixed ladder. The railing shall be provided with a toe-board beneath the open sides where:
 - 4.5.1.1 Persons can pass
 - 4.5.1.2 There is moving machinery
 - 4.5.1.3 There is equipment with which falling materials could create a hazard.
 - 4.5.2 Runways. Runways shall be guarded by a standard railing on all open sides 4 feet or more above floor or ground level. Wherever tools, machine parts, or materials are likely to be used on the runway, a toe-board shall also be provided on each exposed side. Runways used exclusively for special purposes (such as oiling, shafting, or filling tank cars) may have the railing on one side omitted where operating conditions necessitate such omission, providing the falling hazard is minimized by using a runway of not less than 18 inches wide.
 - 4.5.3 Open-sided access ways. Regardless of height, open-sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment, pickling or galvanizing tanks, degreasing units, and similar hazards shall be guarded with a standard railing and toe board.

5. Safety Information

- 5.1 Stairs, Railings, and Guards
 - 5.1.1 Stairs
 - 5.1.1.1 Flights of stairs having four or more risers shall be equipped with standard stair railings or standard handrails. The width to be measured clear of all obstructions except handrails:
 - 5.1.1.1.1 On stairways less than 44 inches wide having both sides enclosed, at least one handrail, preferably on the right side descending.
 - 5.1.1.1.2 On stairways less than 44 inches wide having one side open, at least one stair railing on open side.
 - 5.1.1.1.3 On stairways less than 44 inches wide having both sides open, one stair railing on each side.
 - 5.1.1.1.4 On stairways more than 44 inches wide but less than 88 inches wide, one handrail on each enclosed side and one stair railing on each open side.

- 5.1.1.1.5 On stairways 88 or more inches wide, one handrail on each enclosed side, one stair railing on each open side, and one intermediate stair railing located approximately midway of the width.
- 5.1.2 Winding stairs
 - 5.1.2.1 Winding stairs shall be equipped with a handrail offset to prevent walking on all portions of the treads having width less than 6 inches.
- 5.1.3 Railings
 - 5.1.3.1 Standard railings. A standard railing shall consist of top rail, intermediate rail, and posts, and shall have a vertical height of 42 inches nominal from upper surface of top rail to floor, platform, runway, or ramp level. The top rail shall be smooth-surfaced throughout the length of the railing. The intermediate rail shall be approximately halfway between the top rail and the floor, platform, runway, or ramp. The ends of the rails shall not overhang the terminal posts except where such overhang does not constitute a projection hazard.
 - 5.1.3.2 Stair railings. A stair railing shall be of construction similar to a standard railing but the vertical height shall be not more than 34 inches or less than 30 inches from upper surface of top rail to surface of tread in line with face of riser at forward edge of tread.
 - 5.1.3.3 Wood railings. Wood railings, the posts shall be of at least 2 inch by 4 inch stock spaced not to exceed 6 feet; the top and intermediate rails shall be of at least 2 inch by 4 inch stock. If top rail is made of two right-angle pieces of 1 inch by 4 inch stock, posts may be spaced on 8 foot centers, with 2 inch by 4 inch intermediate rail.
 - 5.1.3.4 Pipe railings. Pipe railings, posts and top and intermediate railings shall be at least 1 1/2 inches nominal diameter with posts spaced not more than 8 feet on centers.
 - 5.1.3.5 Structural steel railings. Structural steel railings, posts and top and intermediate rails shall be of 2 inch by 2 inch by 3/8 inch angles or other metal shapes of equivalent bending strength with posts spaced not more than 8 feet on centers.

5.2 Housekeeping

5.2.1 General Company Policy. All offices, work stations, work areas, passageways, storerooms, restrooms, and service rooms shall be kept clean, orderly, sanitary, and free of known hazards.

- 5.2.1.1 The floor of every workroom shall be maintained in a clean and, so far as possible, a dry condition. Where wet processes are used drainage shall be maintained and false floors, platforms, mats, or other dry standing places will be provided where practicable.
- 5.2.1.2 To facilitate cleaning every floor, work place, and passageway shall be kept free from protruding nails, splinters, holes, or loose boards or other hindrances that would prevent efficient maintenance.
- 5.2.1.3 Sufficient illumination will be provided in all areas at all times. Employees discovering lighting deficiencies will report them to the Safety Officer for correction.
- 5.2.2 Work areas. All employees are responsible for maintaining their immediate work areas in a clean, orderly manner and for notifying maintenance of conditions beyond their control.
- 5.2.3 Machines and equipment. Supervisors will ensure that machines and equipment under their control are maintained in a clean, orderly manner. Crowding should be avoided where ever possible.
- 5.2.4 Aisles. All employees are responsible to ensure that aisles are kept clean, free of material, finished parts, scrap, or any type of debris.
- 5.2.5 Floors. Maintenance will ensure that all floor spaces are maintained in a clean, orderly manner.
- 5.2.6 Walls and ceilings. Maintenance will ensure that all wall spaces are properly painted and maintained in a clean, orderly manner. Postings will be confined to bulletin boards and other appropriate areas.
- 5.2.7 Storage facilities. Appropriate procedures will be followed based on the type of storage facility.
- 5.2.8 Employee facilities. Lockers will be used to protect personal belongings from theft. Locker areas will be kept in a clean, orderly manner. Belongings found insecure will be turned over to the Safety Officer or area supervisor for disposition.
- 5.2.9 Emergency exit doors. Will be kept free of any obstacles at all times. Any employee finding an emergency door blocked should immediately report the condition to Safety Officer for correction. Exit lights and signs will also be maintained in proper condition at all times and immediately reported if deficient.
- 5.2.10 Spills (trained personnel). Spills will be contained immediately by any employee trained in spill containment and immediately reported to the Safety Officer or area supervisor.
- 5.2.11 Spills (untrained personnel). Spills will be immediately reported to the Safety Officer or area supervisor by any employee discovering the spill not having training in containment measures.

6. Training and Information

- 6.1 Employees, supervisors and staff members should informed of the proper materials handling and storage procedures to ensure that such materials do not cause hazardous situations to occur.
- 6.2 Employees providing construction, repair and renovation work should be trained in the proper use of coverings, guardrail system and other requirements to ensure the appropriate level of protection and safety.

7. Definitions

- Floor hole An opening measuring less than 12 inches but more than 1 inch in its least dimension, in any floor, platform, pavement, or yard, through which materials but not persons may fall; such as a belt hole, pipe opening, or slot opening.
- Floor opening An opening measuring 12 inches or more in its least dimension, in any floor, platform, pavement, or yard through which persons may fall; such as a hatchway, stair or ladder opening, pit, or large manhole. Floor openings occupied by elevators, dumb waiters, conveyors, machinery, or containers are excluded.
- Handrail A single bar or pipe supported on brackets from a wall or partition, as on a stairway or ramp, to furnish persons with a handhold in case of tripping.
- Platform A working space for persons, elevated above the surrounding floor or ground; such as a balcony or platform for the operation of machinery and equipment.
- Runway A passageway for persons elevated above the surrounding floor or ground level, such as a footwalk along shafting or a walkway between buildings.
- Standard railing A vertical barrier erected along exposed edges of a floor opening, wall opening, ramp, platform, or runway to prevent falls of persons.
- Standard strength and construction Any construction of railings, covers, or other guards that meets the requirements of 29 CFR 1910.23.
- Stair railing A vertical barrier erected along exposed sides of a stairway to prevent falls of persons.
- Toe-board A vertical barrier at floor level erected along exposed edges of a floor opening, wall opening, platform, runway, or ramp to prevent falls of materials.
- Wall hole An opening less than 30 inches but more than 1 inch high, of unrestricted width, in any wall or partition; such as a ventilation hole or drainage scupper.
- Wall opening An opening at least 30 inches high and 18 inches wide, in any wall or partition, through which persons may fall; such as a yard-arm doorway or chute opening.

TRAINING ATTENDANCE ROSTER WALKING AND WORKING SURFACES			
 Walking and Working Surfaces Training Includes: Housekeeping Aisles and Passageways, Covers and Guardrails Floor and Wall Openings and Protective Measures Stairs, Ladders and Scaffolding 			
<u>INSTRUCTOR:</u>	<u>DATE:</u>	<u>LOCATION</u> :	
NAME (Please Print) FIRST - MI - LAST	SIGNATURI	E	
By signing below, I attest that I have attended the safe by the safety information, procedures, rules, regular instruct	ety training for the topic indicat tions and/or company policy as ed	ed, and will abide s presented and	

Name of Interpreter, if utilized: _____

PROGRAM OVERVIEW

WORKING IN EXTREME TEMPERATURES SAFETY PROGRAM

OSHA Act Paragraph 5, A, 1 (General Duty Clause)

INTRODUCTION: Exposure to extreme heat or cold stress in the workplace must be controlled. This safety program is intended to address issues and identify the specific temperature hazards where work is performed, communicating information concerning these hazards, and establishing appropriate procedures and protective measures for employees. Control or protective measures must be implemented at ranges above 90°F or below 62°F, and short duration exposures to temperatures <45°F or >100°F (including wind chill factors).

TRAINING:

When working in extreme temperatures, employees will be provided with hazard information and/or training, upon initial assignment and as needed. This training may be required in some states.

ACTIVITIES:

- Monitor workplace temperatures
- Ensure employees and supervisors are able to recognize early signs and symptoms of cold and heat intolerance
- Provide engineering controls, work practices and protective equipment to reduce exposure levels to the lowest achievable level
- Ensure the availability of water or other appropriate beverages to employees
- Provide appropriate medical care to employees who have symptoms of a temperaturerelated condition
- Perform periodic inspections to identify any recognized risk factors, situations where actions may be needed to reduce employee exposures, and any deficiencies in the procedures or protective equipment requirements of the area

FORMS:

- Training Attendance Roster
- As needed:
 - **§** Heat Illness Prevention Plan (California only)

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

- 1. **Purpose.** This program outlines some of the safety requirements and precautions needed to protect employees who work in temperature extremes. Extreme heat or cold presents unique hazards to employee health and safety, including reduced awareness of their surroundings and reduced dexterity and ability for the human body to function normally.
- Scope. Applies to any work area where employees must work for more than an hour in an area where the temperature range is above 90°F or below 62°F, or short-duration (15 minutes or less) exposures to <45°F or >100°F (including wind chill factors).

3. Responsibilities.

- 3.1 Management and Supervisors:
 - 3.1.1 Monitor workplace temperatures
 - 3.1.2 Provide engineering controls, work practices and protective equipment to reduce exposure levels to the lowest achievable level
 - 3.1.3 Ensure employees and supervisors are able to recognize early signs and symptoms of cold/heat intolerance such as weakness, muscle cramps, shivering, headache, nausea, inability to do complex motor functions, lethargy, heavy sweating, and mild confusion.
 - 3.1.4 Employers should have an emergency plan in place that specifies what to do if a worker has signs of cold/heat-related illness, and ensures that medical services are available if needed
 - 3.1.5 Ensure the availability of water or other appropriate beverages to employees
 - 3.1.6 Employers should take steps that help workers become acclimatized (gradually build up exposure to heat), especially workers who are new to working in the heat or have been away from work for a week or more. Gradually increase workloads and allow more frequent breaks during the first week of work
 - 3.1.7 Ensure that employees who have symptoms of a temperature-related condition have access to a health care provider, should they wish to seek medical treatment.
- 3.2 Employees:
 - 3.2.1 Follow proper work practices and procedures to help protect their health and safety.
 - 3.2.2 Be aware of the signs and symptoms of cold/heat related illness and injuries (frostbite or other cold related injuries; heat stroke or other heat related injuries) and report such symptoms to your supervisor immediately.

- 3.2.3 Wear appropriate clothing and attire, and use provided protective equipment as needed or required to assist the body in managing the effects of extreme temperatures.
- 3.2.4 Participate in training

4. Procedure.

- 4.1 Control Measures:
 - 4.1.1 Engineering controls will be implemented to reduce exposures to the lowest level achievable. Where controls are insufficient, they will be supplemented by the use of safe work practices.
 - 4.1.1.1 Engineering controls may include temperature regulators, spaces for warm-up or cool-down to acclimate employees to temperature extremes, protective enclosures or specialized tools to reduce the demands of activity on the body.
 - 4.1.1.2 When the temperature of surrounding solid objects are cold enough to cause skin damage the hazard will be reduced by insulating or shielding either the object or the skin whenever possible, or otherwise isolating the cold source from contact.
 - 4.1.2 Work practices will be introduced to reduce the effects of cold/heat when engineering controls are not adequate or are not feasible.
 - 4.1.2.1 Work practices may include written procedures, time restrictions for extreme temperature exposures, increased recovery or warm-up time, increasing the number of employees per task, providing adequate water to hydrate employees with exposure, and encouraging physical fitness in employees.
 - 4.1.3 Protective equipment and clothing will be provided when engineering controls and work practices are not sufficient to reduce employee exposures to acceptable levels.
 - 4.1.3.1 Protective equipment includes standard insulated clothing for cold or hot conditions (coats, cooling bandanas, gloves, hats, face protection, thermal clothing), specialized temperature regulated clothing (cool down or warm up vests), and shelter from sun or cold environments.
 - 4.1.3.2 Access to shade, heated or cooling environments will be provided for employees suffering from heat illness or cold exposure believing a preventative recovery period is needed. Shade areas should have access to the open air or be provided with ventilation or cooling equipment such as fans, air conditioners or misting equipment. Be sure workers in extreme cold conditions take a frequent short break in warm dry shelters to allow their bodies to warm up.

- 4.2 Cold/Hot Weather Alert Safety Program:
 - 4.2.1 In the event of an alert from the National Weather Service or local weather forecast services, the following should be considered:
 - 4.2.1.1 Postpone tasks which are not urgent
 - 4.2.1.2 Increase the number of workers in each team in order to reduce each workers heat or cold exposure.
 - 4.2.1.3 Increase rest allowances.
 - 4.2.1.4 Restrict overtime work, as needed.

5. Safety Information.

- 5.1 Hot Work Areas:
 - 5.1.1 The major conditions that cause heat related stress are high temperatures and humidity, sun exposure, and exposure to heat emitting equipment
 - 5.1.2 Symptoms of heat stress include weakness, heavy sweating, nausea, unsteady gait, irritability, disorientation, changes in skin color or general malaise.
 - 5.1.3 If heat stress is recognized and treated appropriately early, a more serious condition such as heat stroke (vomiting, hot/dry skin, seizures, unconsciousness) likely can be prevented; therefore, it is important to identify and treat as early as possible.
 - 5.1.4 Treatment for heat stress generally includes drinking cool water and rest. Water (including drinking-fountains or individual drinking cups) will be provided. In general employees should be encouraged to drink cool water (50-59°F) at about one-cup (5-7 oz.) every 20 minutes to remain hydrated in extreme heat situations.
 - 5.1.5 Warning signs may be required at entrances to work areas, buildings or enclosures where there is a reasonable likelihood of heat stress and other heat related conditions.
- 5.2 Cold Work Areas:
 - 5.2.1 The major conditions that cause cold related stress are low temperatures, wind chill, dampness or humidity, and cold water.
 - 5.2.2 Symptoms of cold stress include shivering, fatigue, slurred speech, confused behavior, dilated pupils, and numbness in the extremities.
- 5.2.3 If cold stress is recognized and treated appropriately early, a more serious condition such as hypothermia and frostbite (uncontrollable shivering, numbness, discolored skin in extremities) likely can be prevented; therefore, it is important to identify and treat as early as possible.
- 5.2.4 Inadequate or wet clothing increases the effects of cold on the body.
- 5.2.5 Treatment for cold stress generally includes moving the affected employee to a warm area, removing any wet clothing, drinking warm sweetened liquids and rest.
- 5.2.6 Warning signs may be required at entrances to work areas, buildings or enclosures where there is a reasonable likelihood of cold stress and other cold related conditions.

6. Training and Information.

- 6.1 Upon initial assignment, and as needed thereafter for refresher training, employees will be provided with information and/or training in the hazards associated in working in extreme temperatures. They will be provided with the means to protect themselves from extreme heat or cold working conditions.
- 6.2 Employees should understand the environmental and personal risk factors.
- 6.3 Supervisors should understand all of the employee requirements as well as the procedures to follow to implement the requirements and the procedures to follow for contacting and implementing emergency medical response. These procedures should be in writing and maintained.

7. Definitions.

- Acclimatization means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.
- Cold Work Area An area where the temperature (including wind chill) is lower than 62 degrees Fahrenheit.
- Hot Work Area An area where the temperature exceeds 90 degrees Fahrenheit
- *Environmental risk factors for heat illness* means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

- Extreme Temperature –Extreme temperature takes into account wind chill and other environmental factors that reduce or increase the ambient air temperature. With such factors included, extreme temperatures are either a constant working temperature of <62°F or >90°F, or short-duration (15 minutes or less) exposures to <45°F or >100 degrees Fahrenheit.
- *Heat Illness* means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.
- Personal risk factors for heat illness means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.
- *Preventative recovery period* means a period of time to recover from the heat in order to prevent heat illness.
- Shade means blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning.
- Wind Chill A combination of temperature and wind velocity. Wind chill cools the air further than the ambient temperature of the air. For example, if the temperature is 40°F and the wind velocity is 35 mph, the wind chill provides conditions that equal 11°F.

TRAINING ATTENDANCE ROSTER WORKING IN TEMPERATURE EXTREMES		
 Working In Extreme Cold Training Includes: Temperature Ranges Factors for Cold Extremes Cold Stress Injury/Illness Symptom Recognition First Aid Treatment 	Working In Extreme Heat Training Includes:• Temperature Ranges• Factors for Heat Extremes• Heat Related Injury/Illness• Symptom Recognition• First Aid Treatment• Control and Prevention Methods	
<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: