



INJURY & ILLNESS PREVENTION PROGRAM (IIPP)

**AMPCO CONTRACTING, INC.
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DATE REVIEWED: 06/2022

AMP CO

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Employee Access to COMPANY Injury and Illness Prevention Program (“IIPP”)

Definition of terms as used in this section of the IIPP:

- The term “access” means the right and opportunity to examine and receive a copy of the IIPP.
- The term “designated representative” means any individual or organization to whom COMPANY employee gives written authorization to exercise a right of access.
- The term “written authorization” means a request provided to the COMPANY containing the following information:
 - The name and signature of the employee authorizing a designated representative to access the Program on the employee's behalf;
 - The date of the request;
 - The name of the designated representative (individual or organization) authorized to receive the Program on the employee's behalf; and
 - The date upon which the written authorization will expire (if less than one (1) year).

Note: A recognized or certified collective bargaining agent shall be treated automatically as a designated representative for the purpose of access to the IIPP.

All COMPANY employees or their designated representative shall have access to the COMPANY IIPP.

Access to the IIPP will be provided within than five (5) business days after the request for access is received. Access will be provided at a reasonable time and place in a manner reasonable to accommodate the employee’s request.

The COMPANY shall provide a printed copy of the IIPP, unless the employee or designated representative agrees to receive an electronic copy of the IIPP.

COMPANY will provide one printed copy of the IIPP free of charge. If the employee or designated representative requests additional copies of the IIPP within one (1) year of the previous request and the IIPP has not been updated with new information since the prior copy was provided, the COMPANY may charge reasonable, non-discriminatory reproduction costs for the additional copies; or,

Provide unobstructed access through the COMPANY server or website, where the employee may review, print, and email the current version of the IIPP.

Note: Unobstructed access means that the employee, as part of his or her regular work duties, predictably and routinely uses the electronic means to communicate with management or coworkers.

The COMPANY IIPP provided will not include any of the records of the steps taken to implement and maintain the IIPP.

Where COMPANY has distinctly different and separate operations with distinctly separate and different IIPPs, the COMPANY may limit access to the IIPP(s) applicable to the employee requesting it.

COMPANY communicates this right and procedure to access the IIPP to all employees.



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INJURY & ILLNESS PREVENTION PROGRAM

1.0 POLICY

Health & Safety Policy Statement

The *Injury and Illness Prevention Program (IIPP)* safety representative/coordinator,

Reginald Kama

name

Chief Operations Officer

title

for AMPCO Contracting, Inc. has the authority and responsibility for
company name
implementing and maintaining the provisions of this program.

This IIPP is a proactive system for preventing work place accidents and illnesses by identifying and correcting unsafe conditions and work practices through the eight (8) elements of the standard; **1.RESPONSIBILITY, 2.COMPLIANCE, 3.COMMUNICATION, 4.HAZARD ASSESSMENT, 5.ACCIDENT INVESTIGATION, 6.HAZARD CORRECTION, 7.TRAINING & INSTRUCTION, and 8.RECORDKEEPING.**

The health & safe well-being of all individuals on company premises and any personnel engaged in work related operations offsite, is vitally important to our business. Our company must have safety programs, plans, policies, and procedures that are effective and that hold all executives, managers, supervisors, and employees responsible for their actions. *It is the goal of the company to provide a workplace conducive to a healthy & safe work environment free from recognized hazards.*

All employees have the responsibility to comply with all company *Policies & Procedures* and *Code of Safe Practices*. Negative conduct, unsafe behavior, and/or personal habits which may interfere with the safety of themselves or well-being of others will not be tolerated.

An **INJURY FREE WORKPLACE** prospers with individuals who work, interact, and behave with values that are meaningful to a safe working environment for all.

The company Health & Safety Management System is constantly evolving with continuous improvement to be successful. Eliminating hazards and identifying potential **UNSAFE CONDITIONS** and **UNSAFE BEHAVIORS** is everyone's responsibility. "**Say Something & Stop**" an unsafe behavior before it happens is required and communicating unsafe conditions back to management is our proactive approach to **Safety** as a **CORE Value**.

► **Location & Accessibility of the IIPP** shall be made available to all employees during all work operations, shifts, and schedules, regardless of time of day. The IIPP shall be readily accessible for all employees including Cal/OSHA regulating authorities. The IIPP Binder, at minimum, is located at one or more of these applicable areas;

- At the **Main Office Location**, in the administrative department
- In the **Managers/Supervisors Vehicle** for Field Operations
- And if at **Job Site Location**, it may also be noted here _____

► **All Employee's Shall Participate** in the communication and comprehension of this IIPP as a condition of employment and shall be documented with the **IIPP Employee Acknowledgment FORM**. (***APPENDIX**)

Prepared/Approved By: Reginald Kama

Safety Representative / Executive Officer

03/01/2022

Date



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2.0 PURPOSE

** This program is written in compliance with all the requirements of Senate Bill 198, as stated in the Labor Code, section 6401.7, and California Code of Regulations, Title 8, General Industry Safety Order §3203.*

The purpose of this program is to establish programs and practices that will promote an injury and illness free workplace. This method is part of the company Health & Safety Management System.

In general, it establishes how the company and its employees will ensure that:

- Recognized safety hazards in the workplace are controlled or eliminated
- Employees are protected against known hazards
- Employees perform their work in a safe manner

3.0 OBJECTIVE

The goal of injury and illness prevention is to establish the groundwork for methods and practices that maintain work conditions conducive to a healthy and safe workplace environment. The company recognizes that all accidents are “*caused*”, by either **UNSAFE ACTS** or **UNSAFE CONDITIONS**. The general objectives of this program are to identify these causes, establish controls or protective/preventive measures, and promote a culture conducive to a healthy and safe workplace. The specific objectives that the company expects to achieve with this plan are as follows:

- ◆ Promote the exchange of safety information in a form readily available among all employees
- ◆ Identify and abate potential hazards, thereby eliminating accidents
- ◆ Effectively train employees in safe work practices and the hazards associated with their job
- ◆ Recognize employees who comply with safety policies and perform their work in a safe manner
- ◆ Implement a systematic method of measuring the effectiveness of the IIPP
- ◆ Establish a culture, **Safety as a CORE Value**, always striving towards continuous improvement

4.0 SCOPE

The company has developed a number of programs, plans, policies, and procedures that together makeup the **Health & Safety Management System**. One component to this system is the Injury & Illness & Prevention Program (IIPP) which contains elements that address injury and illness prevention. The IIPP does not address the specific responsibilities or requirements for other related safety plans or programs contained specifically in those written **Safety Compliance Programs**, but rather illustrates the tools needed for alignment with the Health & Safety Management System.

These eight (8) elements below describe the company's activities related to maintaining a Healthy & Safe work environment as identified by the Cal/OSHA IIPP standard.

- ① **Responsibility**
- ② **Compliance**
- ③ **Communication**
- ④ **Hazard Assessment**
- ⑤ **Accident Investigation**
- ⑥ **Hazard Correction**
- ⑦ **Training & Instruction**
- ⑧ **Recordkeeping**



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5.0 EMPLOYEE RECOGNITION

The Company recognizes employee safe behaviors. The safety recognition component does not provide incentives for reporting accidents, but rather shows appreciation to employees collectively for maintaining **①Best Practices, ②Following Safety Rules, ③Stopping Unsafe Behaviors, ④Participating in Safety Campaigns, and ⑤Engaging in Continuous Improvement Efforts.**

Recognition may include, but not limited to, employee appreciation in the form of the following:

- Safety Appreciation Meals
- Safety Appreciation Raffle/Give-Away
- Safety Appreciation Gift Card/Gas Card

Together with management, the **Safety Representative** is responsible for administering the recognition component. Recognition efforts shall be periodically evaluated and may be modified by management and disseminated to all employees in order to improve its effectiveness towards a continuous “**Safety Culture Alignment**”.

6.0 DISCIPLINARY ACTION POLICY

A. PURPOSE:

1. Enforcement of the **Company Safety Policies** is necessary in achieving good safety performance and eliminating unsafe behaviors resulting in safety violations necessitating appropriate disciplinary measures.

B. SCOPE:

1. The primary objective of this policy is to support the ongoing integrity of the company’s Safety Rules, Policies & Procedures, and the continued management of maintaining a healthy and safe workplace environment free from recognized hazards.

2. When Safety Policies and Procedures are violated or individuals continue to practice unsafe behaviors that may put themselves or others at risk, then disciplinary action must be considered in order to maintain commitment to the company’s safety mission.

3. A violation of company policy may require the facilitation of a **Safety Violation & Disciplinary Corrective Action FORM** and recorded on file. [*APPENDIX]

▶Management is required to issue appropriate safety specific instructions and training to all employees prior to assigning them work.

▶Management is also responsible for coordinating such work to ensure that it can be accomplished in a safe manner without harm.

▶Employees are individually responsible for his/her own safety and accountability.

▶Employees must comply with each of the provisions of the Health & Safety Management System and all of its Plans, Programs, and Policies & Procedures whether verbally communicated and/or written.



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▶ Employees neglecting to follow a required safety related practice or fail to perform an action that leads to a near miss or incident, depending on the severity, may also be grounds for disciplinary action.

▶ All company personnel, including management, must adhere to all company safety policies & procedures.

C. PROCEDURE:

1. **New Hires**- All new employees shall participate in a *New Hire Safety Orientation* as a part of the general hiring process. The company's mission of being aligned with good safe work habits is disseminated to each individual. All employees are advised that safety cooperation and compliance with all of the policies and procedures is a condition of work. The Health & Safety Program shall be explained and responsibilities clearly defined.

2. **Employee's Duty**- When an employee is observed committing or engaging in an unsafe act, all employees have the duty to inform the employee of their unsafe behavior or non-compliant act. Management shall be immediately notified and appropriate action taken.

3. **Safety Rules & Policies**- Any deviation from the company *Rules and Policies* shall be addressed accordingly, per the California Code of Regulations, Title 8, §3203, of the Injury and Illness Prevention Program (IIPP).

D. PROGRESSIVE DISCIPLINARY ACTION:

▶ Under normal circumstances, disciplinary actions are set forth in a progressively elevated multi-step fashion. If the nature of the violation is so severe that put the individual or others at a higher level of risk, circumstances could dictate that immediate counseling may lead to suspension and/or termination.

❶ Step One: VERBAL WARNING

A verbal warning shall be issued for minor violations of workplace safety policies. If a violation of this type occurs, the manager or supervisor shall meet with the employee for a [coaching session](#) to discuss the unsafe behavior and/or actions, making sure the nature of violation is expressed and understood along with the expected corrective action and/or solution.

▶ Employees may be given *up to three (3) verbal warnings* in a period of 12 months, depending on the severity, before progressing to the next disciplinary action level.

▶ 1 verbal warning followed by a 2nd more serious violation may dictate an immediate written warning.

▶ This warning shall be documented as an informal record by the manager or supervisor.

▶ File the verbal warning record in the employee's personnel file.

❷ Step Two: WRITTEN WARNING

A written warning shall be issued for conduct that violates workplace safety policies that have been either addressed in a previous verbal warning and the behavior has persisted -or- the circumstances surrounding the violation is severe enough whereas someone could have been injured or property compromised. If a violation of this type occurs, the manager or supervisor shall immediately meet with the employee for a [counseling & retraining session](#) to discuss the unsafe behavior and/or actions, making sure the nature of violation is expressed and understood along with the expected corrective action and/or solution.



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- ▶ Employees are allowed *one (1) written warning* in a period of 12 months before progressing to the next disciplinary action level dependent upon the severity of the incident.
- ▶ This warning shall be documented as a formal written record, signed and reviewed by management.
- ▶ Make two copies, have employee sign both and give one to them to acknowledge receipt.
- ▶ File the master signed written warning record in the employee's personnel file.

⑤ Step Two: **FINAL WARNING, SUSPENSION UP TO TERMINATION**

A final written warning shall be issued for serious conduct that violates workplace safety policies that have been either addressed in a previous written warning within 12 months and the behavior has persisted -or- the circumstances surrounding the violation is extremely severe whereas someone could have been seriously or fatally injured or property seriously compromised. If a violation of this type occurs, the manager or supervisor shall immediately meet with the employee for a [performance review](#) detailing the policy for zero tolerance for unsafe behavior and/or actions, making sure the nature of violation is expressed and understood along with the expected corrective action and/or solution. Severe circumstances may dictate further suspension up to termination. A probationary period may be imposed.

- ▶ Employees shall be given *one (1) final warning*. Any further safety violation reprimand regardless of severity may be grounds for immediate termination.
- ▶ This warning shall be documented as a formal written record, signed and reviewed by management.
- ▶ Make two copies, have employee sign both and give one to them to acknowledge receipt.
- ▶ File the master signed final warning record in the employee's personnel file.

7.0 REPORTING INJURIES & CAL/OSHA NOTIFICATION

7.1 As a part of company policy and Cal/OSHA regulations, **ALL EMPLOYEES**, have the responsibility to report any and all work related injuries.

7.2 **ALL WORKED RELATED INJURIES**, regardless of severity, shall be reported to management or your supervisor, but no later than at the end of the shift or work day and/or before the employee goes home for the day/evening.

7.3 Work related injuries included all on-the-job injuries/illnesses, whether on company premises, offsite job location, or on the road while engaged in work activities.

7.4 All injured workers are required to seek observation and/or medical treatment at the designated company occupational clinic to facilitate immediate care.

7.5 **Emergency**- In the event of a severe or life threatening injury/illness, always error on **dialing 911** for prompt emergency responders.

a) Emergency Responder Procedure:

1. Management or supervisory personnel shall be the responsible party for dialing 911.
2. Employees shall not dial 911, but rather stay with the injured and call for help in dialing 911.
2. Management shall provide all of the necessary information in assisting emergency responders.
3. **Reference the Emergency Action Plan (EAP) for complete detailed emergency procedures.*



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7.6 Human Resources or Safety Representative shall immediately notify the *StarStone claims team* of the injury/illness to help facilitate prompt management of the incident.

CLAIMS REPORTING - CLAIMS ADMINISTRATOR			
Contact: StarStone National Claims Management /Mario Bostillo			
Address: 1111 3rd Avenue, Suite 1450 Seattle, WA 98101			
Location	Insurance Carrier	Insurance Account #	Phone #
StarStone	StarStone National Insurance Company	Call your claims contact for current #	714-918-5920

7.7 **Employee Failure to Immediately Report** any injuries or illness is a violation of the company safety policy and may result in disciplinary action.

7.8 Severe injuries and those resulting in death must be called in to the nearest Cal/OSHA district office within eight (8) hours of the employer becoming aware of the accident. **Follow the procedures outlined in the Cal/OSHA Notification Steps.*

8.0 EIGHT ELEMENTS TO THE IIPP

1 RESPONSIBILITIES

A. Safety Representative

The **Safety Representative** is the management team member, or assignee designated by the company manager, who has the delegated authority and responsibility for implementing and coordinating the Injury and Illness Prevention Program. Specifically, he/she has the following responsibilities under this program:

- Implement Safety Initiatives and Communication Awareness
- Facilitate and coordinate Safety Meetings and maintain records of all safety meeting and activities
- Coordinate the Safety Training Programs ensuring all requirements are met for the operation
- Perform and/or delegate periodic site safety inspections
- Coordinate the proper inventory and supply of consumable Personal Protective Equipment (PPE)
- Coordinate the proper use of all PPE, safety equipment and devices
- Review all near misses, hazard identification reporting, and investigation reports
- Maintain records of all hazard abatement programs, accident investigations, and corrective actions
- Maintain all safety training records and tracking programs

B. Managers

It is the responsibility of the management team to establish and support the components described in this program. Management has the primary authority and responsibility for implementing and coordinating the company's safety program. It is their responsibility to provide the information, training, and equipment employees need to perform their work in a safe manner. In addition, management personnel have the following responsibilities under this element:

- Supervise the work of those employees under their direction to ensure they comply with the safety



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policies and procedures contained in all of the Safety Compliance Programs.

- Utilize the recognition and enforcement plans contained in this program to proactively manage the safety behavior of their employees.
- Ensure the Personal Protective Equipment (PPE) provided to employees meets the requirements of the associated safety standard, ensure employees are adequately trained, and ensure proper usage.
- Address safety suggestions and concerns presented by employees, and abate or apply hazard controls to all safety hazards identified under this program.
- Ensure accident reporting and investigation forms are completed as required.

C. Supervisors

Supervisors are the key personnel in any plan designed to create and maintain accountability and interest in the *Health and Safety Culture*. They are responsible for translating company policies into action and promoting a high degree of safety consciousness. Specifically, supervisors have the following responsibilities under this program:

- Participate in Safety Training Programs as an instructor or trainee, as required by those programs
- Ensure employees under their direction receive the required safety training
- Ensure employees under their direction use required safety equipment in accordance with training
- Enforce the safety policies & procedures in regards to employees under their direction
- Address safety concerns or hazards that are brought to their attention, in a timely manner
- Ensure accident investigation reports are filed and completed when required
- Conduct periodic supervisor safety meetings

D. Employees

Employees play an important role in maintaining an injury and illness free workplace. They have the most direct impact on their personal safety behavior, as well as on site safety conditions. Therefore, active employee participation in this program is essential to its success. Under this program, employees have the following specific responsibilities:

- Actively participate in all Safety Initiatives & Communication Programs
- Regularly check the employee bulletin board for new or updated safety information
- Ensure they attend and receive the safety training required by the Safety Training Programs
- Correct any unsafe acts or behavior brought to their attention
- Use all equipment in a safe and responsible manner, never by-passing any safety devices
- Use PPE and related safety equipment in accordance to the safety programs

★ **ALL Employees** shall report all near misses, accidents, injuries, illnesses and/or exposures, regardless of severity, to management or their supervisor, as soon as possible following such events, but no later than at the end of the shift or work day and/or before the employee goes home for the day. **FAILURE TO NOTIFY** is a violation of the company safety policy and grounds for disciplinary action.



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All employees, including managers and supervisors, are responsible for using safe work practices; following all directives, policies, and procedures; and assisting in maintaining a safe work environment. The system to ensure all employees comply with these practices includes the following:

- Informing employees of the requirements within our IIPP in a readily understandable language
- Training all employees on general safety policies, rules, and work practices
- Recognizing employees who perform safe and healthful work practices
- Providing additional training to employees whose safety performance is deficient
- Disciplining employees for failure to comply with safe and healthful work practices
- Distribution of department health & safety policies and procedures

▶ *All Safety Compliance Program binders, manuals, procedures, plans, and/or Code of Safe Practices are located in the administrative office/area, or if applicable, in the supervisor's vehicle for offsite job locations, and accessible to all employees during operating hours. For off hours or days whereas the administrative office is closed, copies shall be kept in those department offices or areas that are accessible to those employees, unless management or workers can still access any closed admin offices.*

③ COMMUNICATION

The company recognizes that open communication between management and staff on safety and health issues is essential to an injury free, productive work place. The company communicates with employees and promotes safety awareness using a variety of programs, some of which are designed for two-way communications, and others that provide for one-way communication. The company uses the following communications programs: safety meetings, tailgate safety meetings, safety postings, safety suggestions, and near miss communication reporting. A more detailed description of these programs is provided below.

A. Safety Meetings ▶ *Keep attendance records of the participants noting the date and topic*

A format used by the company for two-way communications between management and employees, are **periodic safety meetings**. The meeting is designed to provide an open forum for the discussion of safety and health issues between management, the safety meeting participants, and employees. The **Safety Representative** is responsible for coordinating the meeting. The discussions shall be conducted in a positive manner, focusing on safety topics such as:

- ✓ Information regarding new or revised safety programs, policies or procedures
- ✓ Information pertaining to hazard abatement activities or accident investigations
- ✓ Employee safety suggestions or concerns
- ✓ Identification of safety hazards and possible solutions
- ✓ Recognition of employees for notable safety achievements
- ✓ Safety training of a limited nature

In addition to the formal safety meetings, the company uses informal **tailgate safety meetings** (pre-job discussions) as a means of communicating immediate safety information to employees. Safety tailgates shall be conducted **as necessary** by the Supervisors. The following guidelines should be followed when conducting a tailgate safety meeting:

- ✓ Limit the meeting to 10 minutes or less
- ✓ Allow for an open forum to discuss employee safety issues, concerns, and suggestions
- ✓ Provide informal safety training on safety topics, SOP's, and related instruction



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- ✓ Provide informal safety training on hazards associated with the job and JHA's
- ✓ Cover special precautions required to be taken including required PPE reminders
- ✓ Employee involvement is highly encouraged
- ✓ Keep attendance records of the meetings including the date, persons attending, and the topic

When planning a more complex or particularly hazardous job, the tailgate safety meeting shall be thoroughly documented in writing. The written documentation shall be available during the job briefing and signed by all employees involved with the job. If during the course of work, significant changes occur in the job that might affect the safety of employee's, a new job briefing shall be conducted to inform employees of the changes and any additional precautions that may be required.

B. Safety Postings

▶ **Bulletin Boards:** One or more employee bulletin boards are maintained for the purpose of posting notices and other information regarding safety. The bulletin board is located in a conspicuous area frequented by employees. In compliance with state and federal regulations, a number of specific postings and notices are permanently posted at each of those locations. In addition, citations and other notices required to be posted are done so in accordance with the applicable regulations.

▶ **Worksite Postings:** For those mobile crews and personnel that report directly to the jobsite, postings are provided in a binder and maintained with the site supervisor.

▶ **Safety Information:** Specific items shall also be posted on or near the employee bulletin boards. Company specific information may include safety meeting notes, safety training schedules, and non-confidential safety management reports and statistics.

▶ **Posters:** The company has general safety posters placed at various locations around the worksite to remind employees of important safety issues. Posters are often used to reinforce a safety training topics, safety campaigns and initiatives, or mere safety awareness reminder.

▶ **Placards & Signs:** Safety signs are posted at machinery, equipment, or areas that may warn personnel of certain areas to be cautious in, to be aware of, that may present a dangerous situation, or may notify the individual of required PPE to don before entering or operating.

C. Safety Suggestion Program

The company encourages employees to communicate their ideas regarding safety, and provides a safety suggestion program for that reason. Safety suggestions are for employees to share their ideas on how to improve the safety at the worksite. Submittals are available to all employees and can be submitted to the immediate supervisor, manager, safety representative, and/or brought to the safety meeting for submittal and review. Safety meeting participants and/or management personnel shall

review safety suggestions at least quarterly. Urgent safety suggestions potentially hazardous in nature shall be immediately addressed.

④ HAZARD ASSESSMENT



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A. Safety Assessments

In order to determine what safety hazards are present in the workplace, or present during the performance of work, some safety assessment must be conducted. The company has a number of assessments and surveys that can be used to identify hazards and determine the method of elimination or control. These Hazard Assessments are described or referenced below.

1. Site Safety Assessment-

One way to identify work place hazards is to perform a Site Safety Assessment. A Site Safety Assessment is a careful study of the workplace/job site in which each area is analyzed for existing or potential hazards. The results of the assessment help determine the best way to eliminate or control the hazard, and to warn employees of their existence. The company will conduct a Baseline Hazard Assessment for all areas of the site. The company shall conduct subsequent analysis when changes are made to the facility, or the workplace changes, that alter existing hazards or introduce new hazards. Site Baseline Hazard Assessments are performed using a *Hazard Assessment Checklist FORM* [\[APPENDIX\]](#).

2. Job Hazard Analysis (JHA)-

Another way to identify work place hazards is to perform a Job Hazard Analysis (JHA). A JHA is a careful study of a particular job in which each step is analyzed for existing or potential hazards. The results of the analysis help determine the best way to perform the job to reduce or eliminate the hazards associated with it. The company will conduct an initial series of JHAs for all jobs. The company shall continue to conduct these analyses, as deemed necessary, when new jobs are added, existing jobs are significantly changed, or non-routine jobs are performed. JHAs are performed using a *Job Hazard Analysis FORM* [\[APPENDIX\]](#).

3. Other Safety Assessments-

Other OSHA standards have their own specific site evaluation or hazard analysis requirements. Some might be performed along with a Site Assessment or Job Hazard Analysis, such as a Personal Protective Equipment Analysis. Other analyses are performed independently based on individual requirements. As applicable, these evaluations and analyses are described in their respective written safety program. Some critical general industry safety standards having their own evaluation or analysis requirements include, but are not limited to:

- Personal Protective Equipment Standards
- Fall Protection & Ladder Safety Standards
- Powered Hand Tool Standards
- Hazardous Communication Standards
- Lock-out/Tag-out Standards
- Electrical Safety Standards
- Slips/Trips/Falls Prevention Standards
- Hearing Conservation Standards
- Bloodborne Pathogens Standards

B. Inspections

1. Safety Inspection Program-

Safety inspections provide a means of identifying unsafe conditions and work practices, as well as a means for monitoring the effectiveness of the company's overall safety program. The company conducts a number of safety audits and inspections. Safety audits focus mainly on personnel compliance with safety programs and regulations. Safety inspections focus mainly on the material and tangible condition of the site and equipment. The company's safety inspection procedures are outlined in the various



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individual Safety Compliance Programs. The sections below provide a description of the types of safety inspections conducted by the company.

- ▶ General Safety Inspections should not rely upon the exclusive use of checklists, since checklists limit the scope of an inspection to those items listed. Safety inspections conducted by more than one individual are more effective than those that represent a solo effort.
- ▶ Inspections where all potential hazards can be listed should be conducted using a checklist specifically designed for that inspection. This helps to ensure a thorough and consistent inspection.
- ▶ *Inspection Frequencies* may vary, depending on the requirement, and may include;

<i>Daily / Weekly / Monthly / Quarterly / Annually</i>
--

- ▶ The following is a list of guidelines for conducting an effective safety inspection:
 - It is encouraged that all personnel are empowered with the ability to conduct inspections
 - Some personnel may be appropriate for specific types of inspections per their experience
 - The inspector should be knowledgeable in safety and health issues
 - The inspector should be knowledgeable in the industry operations and associated tasks
 - The inspector should be knowledgeable in the industry machinery, equipment, and tools

2. Specific Safety Inspections-

A number of specific safety compliance programs require the performance of safety inspections of the site, specific components, and/or safety equipment and devices. The requirements for these inspections are described in their associated safety compliance program. These inspections may include, but are not limited to, the following general industry requirements:

- General Building & Site Safety
- Emergency Response & Rescue Equipment
- Fire Protection Systems & Equipment
- Equipment, Tools and Guarding Devices
- Personal Protective Equipment (PPE)
- Chemical Storage, Management, and Protection
- Operational Tasks, Processes, those Areas and Materials Involved

Specific safety inspections performed on a routine basis are documented on their own inspection form. Completed inspections are referenced in the recordkeeping element

a) **General Safety Inspections**

The Company also conducts site safety inspections that are general in nature. The purpose is to survey the entire site and identify all safety or health hazards. These inspections are conducted at least quarterly. The Safety Coordinator and/or the Safety Committee are responsible for performing the inspection. The results of the inspection shall be documented in writing, with a copy kept in the safety files. Those hazards that can be corrected on the spot shall be eliminated, and so noted in the report. Newly identified hazards that cannot be corrected on the spot shall be documented on a safety work order, and the work order number provided in the report. If needed, a Hazard Abatement Analysis shall be performed to determine the corrective actions necessary. [[*APPENDIX](#)]



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b) *Outside Consultant/Third Party Safety Inspections*

The Company also supports safety inspections from outside parties. At times, there may be situations whereas third party type inspections may benefit the company's continuous improvement in identifying potential hazards. These may be facilitated on the company behalf and at the company's discretion. Inspections of this nature may be conducted periodically and/or as needed. A written report of third party inspections shall be kept on file. The **Safety Representative** shall review all inspection reports, and if necessary, coordinate abatement of for newly identified hazards. Examples of such inspections may include, but are not limited to, the following:

- Fire Marshall or Building Inspector Inspections
- Workers' Compensation or Property Loss Insurance Company Inspections
- Cal/OSHA Consultation Service Inspections
- Private Safety Consultant Inspections

c) *Hazard Identification of Unsafe Conditions*

Employees are also encouraged to identify hazards and report unsafe conditions or other safety discrepancies immediately. When an employee identifies a safety hazard that they cannot be immediately abated on the spot, they are expected to document and/or notify their immediate supervisor. Where safety suggestions are used to present new ways of improving safety, safety work orders identify existing unsafe conditions that need to be corrected as soon as possible. These documented unsafe conditions are given top priority as required to eliminate or protect against the hazard. No employee will be retaliated against for making safety suggestions or for reporting unsafe conditions.

⑤ ACCIDENT INVESTIGATION

All accidents shall be investigated, either formally or informally, to determine the cause and the corrective action necessary to prevent it from occurring in the future. The Supervisor shall conduct an informal accident investigation for all accidents as part of the Supervisor's Accident Report. For Cal/OSHA recordable injuries, and other more serious accidents, a formal accident investigation shall also be completed. The end results of the investigation are corrective actions that shall be taken to prevent the recurrence of similar accidents. Management is responsible for carrying out any corrective actions and/or employee disciplinary action or coaching following the investigation.

Investigation of workplace accidents, hazardous substance exposures and near-accidents will be done by a Supervisor/Safety Administrator, and will include:

1. Visiting the scene as soon as possible
2. Interviewing affected workers and witnesses
3. Examining the workplace for factors associated with the accident/exposure/near-accident
4. Determining the causes of the accident/exposure/near-accident
5. Taking corrective action to prevent the accident/exposure/near-accident from reoccurring
6. Recording the findings and corrective actions taken on the attached OSHA Form 301/Employee Injury Report/etc.



INJURY & ILLNESS PREVENTION PROGRAM

7.

⑥ HAZARD CORRECTION

A. The Company takes a proactive approach towards eliminating and preventing hazards in the workplace. Various methods of Corrective Action measures are necessary in order effectively mitigate future potentially hazardous situations. Methods used generally flow in the following steps noted below to achieve the most immediate and effective results.

- Identify the Desired Outcome
- Outline the Plan of Action
- Train/Re-Train on the Procedure or Plan
- Eliminate or Control the Hazard
- Evaluate the Process
- Document the Corrective Action

B. Identify the Desired Outcome

- Site Safety Analysis
- Safety Compliance Audits
- Safety Inspections
- Safety Suggestions
- Safety Work Orders
- Accident Investigations

1. Documentation: Hazard identification must be followed up with documentation to ensure the hazard is abated. Therefore, all safety hazards are documented using a safety work order, regardless of the method of identification. Safety work orders are entered into the Computerized Maintenance Management System, which provides a means for tracking the progress and completion of work.

2. Evaluation: The evaluation of the hazards consists of three steps: defining exactly what the hazard is, reviewing government regulations and industry standards relating to the hazard, and determining the best means for eliminating the hazard. The scope of this evaluation depends on the nature of the hazard, and may require the review of additional personnel. The Safety Coordinator should review the more complex hazards. This allows the Safety Coordinator to review government regulations concerning the hazard, determine the corrective action needed, and prioritize corrective actions based on the severity of the hazard. The Safety Committee's assistance may be solicited to evaluate the type of corrective action that could be taken for complex hazards, as well as prioritize corrective actions.

3. Elimination: Elimination of hazards is accomplished primarily through one of more of the following means: creating engineering controls, implementing administrative controls, or using personal protective equipment. The process of eliminating the hazard may be as simple as assigning someone the task of correcting the problem, or it may require more involved project planning. Hazards may be temporarily eliminated until further action can be taken to permanently eliminate or prevent the hazard. Specific actions taken to eliminate a hazard may include, but is not limited to, the following:

- Fixing or replacing defective equipment
- Adding new equipment
- Installing guards or modifying equipment
- Disabling or blocking hazardous components



INJURY & ILLNESS PREVENTION PROGRAM

- Removing hazardous equipment from use

The **Safety Representative** and/or **Safety Committee** shall monitor the status of all identified safety hazards to ensure timely completion.

Prevention: Many hazards have the potential of recurring after they have been eliminated. This is especially true when human effort is relied upon to maintain hazard protection. Action necessary to prevent hazards may include, but is not limited to, the following:

- Training or educating employees in the hazard
- Posting warning signs
- Engineering tamper proof protective devices
- Utilizing enforceable administrative controls

7 TRAINING & INSTRUCTION

A. Training is essential to maximize the skills and knowledge of all employees. The Company has a duty to incorporate safety as an integral part of its training efforts. It does so through the use of three distinct yet related training programs: safety indoctrination, job instruction training, and safety training. These programs are described in detail in sections below.

B. Prior to starting work, all employees are to be given instructions regarding job safety and safety hazards present in the workplace. This indoctrination may not qualify the employee for advanced levels of participation in certain safety programs, but does permit them to perform the essential elements of their job. Topics that should be included in this indoctrination include, but are not limited to, the following:

- The Company's Code of Conduct
- Their responsibility for the safe conduct of their work
- Their responsibility for reporting accidents, injuries, and illnesses
- Identifying and reporting work place hazards or unsafe acts
- The Company's safety communication and enforcement programs
- The Company's general safety rules
- Personal protective equipment requirements
- Location of first aid supplies
- Emergency response procedures and evacuation routes

C. Employee Training:

▶ Whenever an employee exhibits an insufficient level of knowledge in his/her job assignment or a specific program. The employee shall be considered unqualified in that specific area until, through retraining, the employee demonstrates a sufficient level of knowledge.

Many state and federal safety standards require annual refresher training. All applicable employees shall receive mandatory annual refresher training. Employees who fail to receive this training in a timely manner, shall be considered unqualified in that area of safety until he/she receives the refresher training.



INJURY & ILLNESS PREVENTION PROGRAM

▶ All training shall be documented and records kept on file. Safety training documentation shall include the following information as a minimum:

- Date of training
- A list of subject matter covered during training
- Title, name, and signature of trainer
- Name and signature of trainee

D. Upon completion of all safety training, employees shall be required to demonstrate a sufficient understanding of the material covered. This demonstration may take the form of discussion, observed practical exercises, or exams or quizzes. Documentation of completion shall be kept on file with other training documentation. Employees who fail to demonstrate sufficient understanding shall not be considered trained or qualified.

E. The company recognizes that training needs change due to a number of factors. The following is a list of situations that would require additional training:

▶ An employee is given a new job assignment for which he/she has not received training. The new assignment may be a change in location, responsibility, or position. If it involves a change to a supervisory position, this training shall cover the hazards and risks faced by the employees under the supervisor's direction. Training must take place prior to the employee performing work under the new job.

▶ Whenever new or previously unrecognized substances, processes, equipment, or procedures are introduced which pose a hazard.

8 RECORDKEEPING

A. In compliance with the Cal/OSHA recordkeeping regulations, the company maintains its Cal/OSHA 300 Logs and supplemental files. The company's Employee Accident Report and Supervisor Accident Reporting forms shall also be maintained along with any internal formal accident investigation reports and documentation.

B. The following guidelines should be used to determine when an injury or illness shall be recorded on the Cal/OSHA 300 Logs [\[APPENDIX\]](#):

A work related injury or illness must be entered on the Cal/OSHA Log if it involves:

- A death
- Lost workdays
- Restricted or Modify Duty
- An injury requiring medical treatment beyond first aid
- An injury that resulted in a loss of consciousness

C. Documentation Retention

▶ Documentation of all Health & Safety programs, plans, policies, procedures, activities, inspections, assessments, audits, investigations, corrective actions, and their results provides a valuable management tool for controlling hazards in the work place, and preventing injuries and illnesses. For this reason, the company keeps all of its safety documents and records indefinitely. Should the need



INJURY & ILLNESS PREVENTION PROGRAM

arise to properly dispose of any documents described in and/or associated with the Injury & Illness Prevention Program, the regulatory requirements stated below shall be adhered to.

D. Recordkeeping Retention

- ▶ General documents, plans, training and employee record retention requirements range from 1 to 30 years. The company's **Standard Operating Procedure** is to retain **ALL** employee Health & Safety related records for the duration of employment, unless otherwise noted in the table below.

#	CATEGORY:	RETENTION:
1	Training - associated with health and safety training records <i>*Best Practice; retain employee training records for duration of employment plus+ minimum of 5 years after separation.</i>	3 years *employment +5 years
2	Workers' Compensation Claims - associated with workplace injury/illness <i>*Best Practice; retain claims records for duration of employment plus+ minimum of 5 years after separation.</i>	5 years *employment +5 years
3	Accident Investigations & Reports - associated with chemicals, hazardous materials, and toxic substance exposures	employment +30 years
4	Employee Medical Evaluations - associated with respiratory protection	employment +30 years
5	Employee Bloodborne Pathogen Exposure Records - associated with exposure	employment +30 years
6	Employee Exposure & Medical Surveillance Records - all exposures	employment +30 years
7	Safety Data Sheets (SDS) - all chemicals/hazardous substances	30 years
8	Programs & Plans - associated with health and safety; newest version	indefinitely



COMPANY POLICY ACKNOWLEDGMENT

1.0 POLICY

Health & Safety Policy Statement

The *Injury and Illness Prevention Program (IIPP)* safety representative/coordinator,

Reginald Kama

name

Chief Operations Officer

title

for AMPCO Contracting, Inc. has the authority and responsibility for implementing and maintaining the provisions of this program.

company name

This IIPP is a proactive system for preventing work place accidents and illnesses by identifying and correcting unsafe conditions and work practices through the eight (8) elements of the standard; **1.RESPONSIBULITY, 2.COMPLIANCE, 3.COMMUNICATION, 4.HAZARD ASSESSMENT, 5.ACCIDENT INVESTIGATION, 6.HAZAZARD CORRECTION, 7.TRAINING & INSTRUCTION, and 8.RECORDKEEPING.**

The health & safe well-being of all individuals on company premises and any personnel engaged in work related operations offsite, is vitally important to our business. Our company must have safety programs, plans, policies, and procedures that are effective and that hold all executives, managers, supervisors, and employees responsible for their actions. *It is the goal of the company to provide a workplace conducive to a healthy & safe work environment free from recognized hazards.*

All employees have the responsibility to comply with all company *Policies & Procedures* and *Code of Safe Practices*. Negative conduct, unsafe behavior, and/or personal habits which may interfere with the safety of themselves or well-being of others will not be tolerated.

An **INJURY FREE WORKPLACE** prospers with individuals who work, interact, and behave with values that are meaningful to a safe working environment for all.

The company Health & Safety Management System is constantly evolving with continuous improvement to be successful. Eliminating hazards and identifying potential **UNSAFE CONDITIONS** and **UNSAFE BEHAVIORS** is everyone’s responsibility. **“Say Something & Stop”** an unsafe behavior before it happens is required and communicating unsafe conditions back to management is our proactive approach to **Safety** as a **CORE Value**.

► **Location & Accessibility of the IIPP** shall be made available to all employees during all work operations, shifts, and schedules, regardless of time of day. The IIPP shall be readily accessible for all employees including Cal/OSHA regulating authorities. The IIPP Binder, at minimum, is located at one or more of these applicable areas;

- At the **Main Office Location**, in the administrative department
- In the **Managers/Supervisors Vehicle** for Field Operations
- And if at **Job Site Location**, it may also be noted here

► **All Employee’s Shall Participate** in the communication and comprehension of this IIPP as a condition of employment and shall be documented with the **IIPP Employee Acknowledgment FORM**. (***APPENDIX**)

Prepared/Approved By:

Reginald Kama

Safety Representative / Executive Officer

06/01/2022

Date



COMPANY POLICY ACKNOWLEDGMENT

I have received instructional *Training & Review* on the following company program:

Injury & Illness Prevention Program (IIPP)

It is company policy to abide by the rules, policies, and procedures provided in the training I received today.

Policy & Procedure curriculum included general awareness and review on the following:

- ♦ *Injury & Illness Prevention Program Requirements*
- ♦ *8 Elements of the Injury & Illness Prevention Program*
- ♦ *Health & Safety Policy Statement*
- ♦ *Responsibility & Accountability*
- ♦ *Location & Accessibility of the IIPP*

Any deviations, unsafe behaviors, or blatant disregard of this policy may be grounds for disciplinary action.

I have received, reviewed, and understand the [Injury & Illness Prevention Program](#) provided to me today and if I have any further questions about the information presented, it is my responsibility to contact my Supervisor/Manager or company Safety Representative for further guidance.

Print Employee Name:

Department:

Employee Signature:

Date:

Instructors Signature:





Company Safety Rules

◆ Code of Safe Practices ◆

Employee IIPP Responsibilities:

- Immediately report any injury, accident, or property damage to your supervisor, no matter how minor.
- Know the safe way to perform any job given to you, follow safe work practices and use required personal protective equipment. If unsure, contact your supervisor for instructions prior to starting the job.
- Immediately report any unsafe equipment, condition, practices or procedure to your supervisor.
- Attend and participate in safety meetings.
- Comply with all company safety rules, policies and instructions given regarding performance of your job.

General Safety:

- Horseplay, practical jokes, scuffling and other acts which tend to have an adverse influence on the safety or wellbeing of employees or others is prohibited.
- Any employee who attempts to report to work under the influence of alcohol or drugs is dangerous and, if detected, will be prevented from working and will be subject to immediate disciplinary action up to and including discharge.
- Comply with all safety-related warning signs and tags. They are posted to alert you to hazards.
- Keep aisles, doors, exits, electrical panels and fire extinguisher clear and unobstructed.
- Do not tamper with safety equipment.
- Maintain good housekeeping at all times. Discard trash and debris properly. Store tools and equipment out of aisle or traffic paths. Keep exits clear and unobstructed.
- No one shall knowingly be permitted or required to work while the employee's ability or alertness is so impaired by fatigue, illness, or other causes that it might unnecessarily expose the employee or others to injury.
- Do not use compressed air to clean yourself.

Hand Tools:

- Use the right tool for the job; if unsure ask your supervisor.
- Return tools and equipment to proper storage places after use.
- Report damaged or unsafe tools and equipment immediately. Damaged or unsafe tools and equipment are to be marked "Do Not Use" and secured.

Powered Equipment and Machinery:

- Never use or operate powered equipment or machinery of any type unless you have been trained and authorized by your supervisor. Always ask your supervisor if you have any questions regarding the proper or safe operation of powered equipment or machinery.
- Damaged or malfunctioning equipment shall be removed from service and tagged "Defective".
- Inspect equipment and machinery daily prior to use and never operate machinery without it's guarding in place.
- Never wear loose clothing, jewelry, or unbound long hair around machinery where it could get entangled.
- Do not leave machinery running unattended.
- Keep machinery clean, free of tools, rags, scrap, etc.



Company Safety Rules

◆ Code of Safe Practices ◆

- Follow Lock-Out/Tag-Out procedures on designated equipment before cleaning, adjusting, un-jamming or repairing machinery and equipment. Never remove Locks or Tags on equipment that is undergoing service or repair. Only authorized persons are to repair machinery and equipment.

Lifting Procedures:

- Use mechanical lifting devices when transporting heavy objects.
- Plan the move before lifting; remove obstructions from your chosen pathway.
- Get assistance from a coworker if necessary to handle a heavy or awkward load.
- Practice good body mechanics when lifting;
 1. *Position your feet shoulder width apart with one foot slightly in front of the other.*
 2. *Bend at the knees and keep your back straight.*
 3. *Hold objects as close to your body as possible.*
 4. *Perform lifting movements smoothly and gradually; do not jerk the load.*
 5. *If you must change direction while lifting or carrying the load, pivot your feet and turn your entire body. Do not twist at the waist.*

Fire Prevention:

- Store flammable liquid properly, either in their original container or U.L. approved safety cans.
- Clear access should be maintained to all fire extinguishers and fire alarm panels.
- Fire extinguishers must be identified with appropriate signage and an up to date service tag.

Electrical Safety:

- Only trained and authorized employees are allowed to repair or service electrical equipment.
- Ensure electrical power and extension cords are in good condition, and free of cuts, fraying, etc. Do not repair damaged electrical power cords. They should be immediately removed from service.
- Avoid working in or around water when using powered tools or equipment.
- Portable powered equipment shall be double insulated and equipped with a 3-prong plug.
- Do not remove electrical plugs from outlets by pulling on the cord. Grasp the plug to remove it.
- Never match up a two prong outlet with a three prong plug. You are bypassing the ground and are subject to potential electrical shock.
- Never overload an electrical outlet.
- Extension cords cannot be used to power permanently installed equipment.
- Maintain a 36" clearance around electrical panels and shut-off switches and keep doors on electrical boxes closed at all times.

Hazardous Substances:

- Know the location and understand the contents of Safety Data Sheets (SDS) for hazardous substances you work with.
- Do not eat or smoke in areas where hazardous substances are stored or handled.
- Understand and follow emergency procedures necessary if there is a hazardous material spill.
- Do not transfer hazardous substances into unlabeled containers.
- Do not use any hazardous substance unless you have been trained how to use it safely.
- Personal protective equipment issued by your supervisor must be worn when instructed to do so. Employees are responsible for maintaining PPE in good condition.



Company Safety Rules

◆ Code of Safe Practices ◆

Slip/Trip/Fall Prevention:

- Keep walkways and aisles free of clutter or items which could cause a fall.
- Avoid water as much as possible and slow down in wet conditions. Avoid rushing and running and maintain good balance when performing your job tasks.
- Ensure adequate lighting is available. Report burned out light bulbs or the need for additional lighting.
- Wear shoes that fit properly and are in good condition.
- Clean up spills immediately.

Workplace Violence:

- A verbal threat or physical assault against another person is considered an act of violence and offenders are subject to disciplinary action.
- Physical damage caused to company property is considered a violent act and offenders are subject to disciplinary action.
- Report suspicious persons whenever you have a concern over your personal safety or security when performing your job.
- Avoid physical conflict and report any observation of a violent act to your Supervisor.
- Report threats or concerns of potential violence from spouses, acquaintances, etc. that might affect you or co-workers in the workplace or during the performance of your job.

Personal Protective Equipment (PPE):

- Eye Protection, manufactured in accordance with ANSI Z97.1 shall be worn when required.
- The appropriate gloves shall be worn when handling hazardous substances or items with sharp edges, splinters, etc. that is capable of causing injury to your hands.
- The appropriate gloves goggles face and body protection shall be worn when handling hazardous substances.
- Keep your PPE in good condition. Report problems with your equipment to your supervisor.

Ladders:

- Inspect ladders before use to ensure they are free of cracks, rungs are free of grease, non-slip feet are in good condition, and otherwise free of damage.
- Ladders must be placed on a flat stable surface.
- Never work from the top two steps of a stepladder, or from any of the top 3 steps of a straight or extension ladder.
- Never move a ladder while someone is on it.
- Metal ladders must not be used when working on or near electrical circuits. Use fiberglass or wooden ladders.
- When ascending or descending a ladder, the user shall face the ladder.
- If a straight ladder is used to climb onto a work platform, it should extend at least 3' above the working level.
- Straight ladders should have grippers or cleats and be lashed at the top to prevent slippage.
- Ladders are not to be used in a horizontal position as a walking surface.
- Keep your weight centered over the center of the ladder, do not over reach.
- Maintain three-point contact with the ladder at all times- either one hand and two feet or one foot and two hands.



Las Reglas de Seguridad de Empresa

◇ Código de Prácticas Seguras ◇

Responsabilidades de Empleados bajo el programa de prevención de enfermedades y lesiones (PPE):

- Reporte inmediatamente cualquier lesión, accidentes o daños a su supervisor inmediatamente, sin tener en cuenta lo tal menor del nivel del incidente.
- Conozca la forma segura de realizar cualquier trabajo asignado, siga las prácticas de seguridad de trabajo y utilice el equipo personal de protección necesario. Si tiene cualquier duda, comuníquese con su supervisor(a) para obtener instrucciones antes de empezar el trabajo.
- Reporte inmediatamente cualquier equipo, condición, prácticas o procedimiento inseguros a su supervisor(a).
- Asiste y participe en reuniones de seguridad.
- Cumple con todas las normas de seguridad de la empresa, las políticas y las instrucciones en relacionado al desempeño del trabajo.

Seguridad General:

- Es prohibido llevar las payasadas, bromas, chistes y otros actos que tienen la tendencia de imponer influencia adversa contra la seguridad o bienestar de los empleados o de otras personas.
- Cualquier empleado(a) que intenta presentarse al trabajo bajo la influencia del alcohol o drogas ilícitas es peligroso y, si se percibe, será prohibido de trabajar y será sujeto a medidas disciplinarias inmediatas hasta y incluyendo terminación de empleo.
- Cumple con todas las señales de advertencia relacionadas con la seguridad y las etiquetas. Se publican para alertar de los riesgos.
- Mantenga pasillos, puertas, salidas/entradas, cajas eléctricas y áreas de extintores de incendios ordenados y sin obstáculos.
- No manipule los equipos de seguridad.
- Mantenga el buen orden en todo momento. Deseche la basura y escombros correctamente. Guarde herramientas y equipos retirado de rutas de tráfico o pasillos. Mantenga salidas vacío y sin obstáculos.
- Nadie será permitido o requerido ha trabajar mientras sus capacidad o estado de alerta será afectada por fatiga, enfermedad, o otra causa que podría exponer innecesariamente el empleado o a otros a una lesión.
- No use aire de presión para limpiarse, usted mismo.

Herramientas de Mano:

- Utilice la herramienta adecuada para el trabajo; si inseguro(a) clarifique con su supervisor(a).
- Guarde herramientas y equipos a lugares apropiados después de su uso.
- Reporte inmediatamente herramientas y equipos dañadas o inseguras. Herramientas y equipos dañadas o inseguras deben ser aseguradas y marcadas "Do not use" – "No use."

Maquinaria y equipo eléctrico/motorizado:

- Nunca utilice equipo encendido o maquinaria de cualquier tipo a menos que haya sido(a) capacitado(a) y autorizado(a) por su supervisor(a). Siempre hablen con nuestros supervisores si tienen alguna pregunta con respecto al funcionamiento adecuado o seguro de equipos eléctricos o maquinaria.
- Equipo dañado o funcionando incorrectamente será retirado de servicio y marcado "Defectuoso".
- Inspeccione equipos y maquinaria diariamente antes de utilizarlo y nunca opere maquinaria sin tener equipo de seguridad apropiado aclocado en tal maquinaria.



Las Reglas de Seguridad de Empresa

◇ Código de Prácticas Seguras ◇

- Nunca use ropa suelta, joyas, o pelo largo sin ser ligado estando alrededor de maquinaria donde se podría ser enredada.
- No desatiende maquinaria mientras que este funcionando.
- Mantenga maquinaria limpio y libre de otras herramientas, trapos, basura, etc.
- Siga los procedimientos de Lock-out/Tag-out en equipo marcados antes de limpiar, ajustar, desatracar o cualquier reparación de tal maquinaria y equipo. Nunca quite cerradura o avisos en el equipo que está bajo servicio o reparación. Sólo las personas autorizadas pueden repara tal maquinaria y equipo.

Procedimientos de Elevación:

- Utilice maquinaria de elevación para transportar objetos pesados.
- Planifique el movimiento antes de levantar el objeto; elimine obstrucciones en el camino.
- Obtenga asistencia de un compañero de trabajo si es necesario para controlar una carga pesada o difícil de manejar.
- Practique buen mecánica corporal al levantar algo;
 1. *Coloque los pies lo ancho de los hombros de separación, con un pie ligeramente delante del otro.*
 2. *Agáchese doblando las rodillas y mantenga la espalda recta.*
 3. *Al levantar el objeto, mantenga el peso lo mas cerca de su cuerpo como sea posible.*
 4. *Realicé movimientos suavemente y poco a poco al levantar; no tire la carga.*
 5. *Si tiene que cambiar de dirección al levantar o llevar la carga, gire los pies y todo el cuerpo. No se torce en la cintura.*

Prevención de Incendios:

- Guarde líquidos inflamables correctamente, ya sea en su contenedor original o en contenedores de seguridad con códigos de aprobación “U.L.”
- Se debe mantener los pasillos a todos los extintores de incendios y acceso ha alarmas. contra incendios limpios y sin obstáculos.
- Extintores de incendios deberán estar identificados con la señalización adecuada y un aviso con informe de servicio al día.

Seguridad de Electricidad:

- Los únicos empleados permitidos ha reparar o prestar servicio ha equipo eléctrico son los quien son entrenados y autorizados.
- Asegúrese de que los cables eléctricos y extensiones están en buenas condiciones y libre de cortes, desgaste, etc. No repare cables eléctrica si están dañadas. Se deben eliminar de servicio inmediatamente.
- Evite trabajar adentro o alrededor de agua cuando utilicen herramientas o equipos.
- Maquinaria portátil debe ser doble aislamiento y equipado con un enchufe de 3 clavijas.
- No tire cables eléctricos para desenchufarlos. Agarre el enchufe para quitarlo.
- Nunca coinciden una toma de corriente eléctrica de dos con un enchufe de de tres clavijas. Se está pasando por alto la tierra y están sujetos a posibles descargas eléctricas.
- Nunca sobrecargué una toma de corriente eléctrica.
- Cables de extensión no se puede utilizar para equipos o maquinaria instalada permanentemente.
- Mantenga un juego de 36” (pulgadas) alrededor de paneles eléctricos y interruptores de cierre y mantenga las puertas en cuadros eléctricos cerrados en todo momento.



Las Reglas de Seguridad de Empresa

◇ Código de Prácticas Seguras ◇

Sustancias Peligrosas:

- Conozca el lugar del Manual de Datos de Seguridad de Materiales (Safety Data Sheets) y comprende la información para sustancias peligrosas.
- No come o fume en áreas que son usadas para el uso o para guardar sustancias peligrosas.
- Comprende y siga los procedimientos de emergencia necesarios si hay un derrame de material peligroso.
- No transfieren sustancias peligrosas en contenedores sin adjuntarle un aviso de marca.
- No utilice cualquier sustancia peligrosa, a menos que usted ha sido capacitado(a) cómo usarlo de forma segura.
- Deberán usar equipo de protección personal (PPE) dado por su supervisor cuando se indique. Empleados son responsables de mantener el equipo de protección personal (PPE) en buenas condiciones.

Prevención de Deslizas/Tropezadas/Caídas:

- Mantengan las aceras y pasillos libres de desorden o elementos que podrían causar a una caída.
- Evite el agua lo más posible y tengan cuidado (han el trabajo con calma y seguridad) en condiciones de humedad. Eviten correr y el apuro, mantengan el buen equilibrio al realizar sus tareas de trabajo.
- Estén seguros que hay iluminación adecuada. Reporte bombillos quemados o la necesidad de iluminación adicional.
- Usen zapatos que le quedan correctamente y están en buen estado.
- Limpie derrames inmediatamente.

Violencia en el Trabajo:

- Las amenazas verbales o agresión física contra otra persona se considera un acto de violencia y los delincuentes serán sujetos a medidas disciplinarias.
- Daños materiales causados a la propiedad de la empresa se consideran un acto violento y los delincuentes serán sujetos a medidas disciplinarias.
- Siempre reporten personas sospechosas que tengan una preocupación sobre su seguridad o seguridad al realizar su trabajo.
- Eviten los conflictos físicos y reporten cualquier observación de actos violentos a su supervisor.
- Reporten las amenazas o preocupaciones sobre potencial de violencia de los cónyuges, conocidos, etc. que podría afectar le o compañeros de trabajo en el lugar de trabajo o en el desempeño de su trabajo.

Equipo de Protección Personal (PPE):

- Protección del ojo, fabricada de acuerdo con ANSI Z97.1 deberá ser usado cuando sea necesario.
- Guantes adecuados deberán ser usados al manipular sustancias peligrosas o artículos con bordes afilados, esquirlas, etc., que son capaz de causar lesiones a las manos.
- La protección de rostro y cuerpo, gafas de seguridad, y guantes adecuados deberán ser usados al manipular sustancias peligrosas.
- Mantenga su PPE en buen estado. Reporte de problemas con su equipo a su supervisor.



Las Reglas de Seguridad de Empresa

◇ Código de Prácticas Seguras ◇

Escaleras:

- Inspeccione escalas antes de su uso para garantizar que estén libres de partidas, escalones estén libres de grasa, pies antideslizantes están en buenas condiciones y en total en buen estado.
- Escaleras se deben colocar en una superficie plana y estable.
- Nunca se pase del tercer escalón más alto de una escalera de forma “A” o de cualquiera de los 3 escalones más altos de una escalera recta o escalera de extensión.
- Nunca mueve una escalera mientras que alguien este pardo(a) en ella.
- Escaleras de metal no se deben usar cuando se trabaja en o cerca de circuitos eléctricos. Utilice las escaleras de fibra de vidrio o de madera.
- Al subir o bajar una escalera , el usuario deberá hacer frente a la escalera.
- Si se utiliza una escalera recta a subir en una plataforma de trabajo (ejemplo: techo plano), debería extenderse al menos de 3' (pies) arriba del nivel de trabajo.
- Escaleras rectas deben tener grapas para abrocharse en la parte superior del área de trabajo para que no se deslicé.
- Las escaleras no son para ser utilizados en una posición horizontal como una superficie para caminar .
- Mantenga su peso centrado sobre el centro de la escalera, no alcancen a los lados.
- Mantener tres puntos de contacto con la escalera en todo momento- sea por una mano y dos pies o un pie y dos manos.



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

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ATTACHEMENT I ▪ PPE Training Acknowledgment

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ATTACHEMENT III ▪ Cal/OSHA PPE Standard & OSHA Guide

RECORDS ▶ *All records are kept on file in the administrative office*



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

1.0 OBJECTIVE

The company's goal is to provide a healthy & safe working environment free from known and potentially anticipated hazards. When hazardous situations are identified, certain steps shall be taken to ensure an injury free operation. Therefore, the company has developed this plan in an effort to provide applicable personal protective equipment when hazardous situations are identified in the workplace that cannot be readily eliminated or abated by engineering or administrative controls. Some methods used in determining the right PPE for the job include a Job Hazard Analysis (JHA), site audits, and task specific assessments.

1.1 PPE is NOT a Substitute for more effective control methods and its use will be considered only when other means of protection against hazards are not adequate or feasible. PPE shall be used in conjunction with other controls unless no other means of hazard controls exist.

1.2 Personal Protective Equipment (PPE) will be provided, used, and maintained when it has been determined that its use is required to ensure the safety and health of our employees and that such use will lessen the likelihood of occupational injury and/or illness.

1.3 This Plan Addresses:

- A. General PPE Requirements-** including eye & face, head, foot, arm, and hand protection.
- B. Specific PPE Requirements-** if applicable, shall apply as required for Fall Protection, Respiratory Protection, Welding Protection, Hearing Protection, and Bloodborne Pathogens, as participation in those specific programs further outlines those detailed procedures.
- C. Additional PPE Requirements-** if applicable, exists for other individual body parts as the need for this PPE is established based on hazard assessment criteria.

This PPE Plan Serves To:

- Establish responsibility for implementing the requirements of this program
- Establish guidelines for hazard assessment and PPE selection
- Provide employees with training criteria
- Give guidance on the cleaning and maintenance of PPE
- Comply with all Federal, State, and Local standards and regulations and manufacturer guidelines

2.0 RESPONSIBILITIES

The Personal Protective Equipment Plan applies to all company employees, all contractors and vendors performing work on company property, and all other individuals who are visiting or have business with our company where PPE is applicable.

2.1 The **Safety Representative** has been assigned as the administrator of this PPE Plan. The plan administrator is responsible for the overall implementation and periodic review of the program. This involves:



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

- Conducting, reviewing, and updating workplace hazard assessments to determine the presence of hazards which necessitate the use of PPE
- Selecting and purchasing PPE
- Providing training, guidance, and assistance to managers, supervisors and employees on the proper use, care, storage, and cleaning of approved PPE
- Maintaining records on hazard assessments
- Maintaining records on PPE assignments and training
- Periodically re-evaluating the suitability of previously selected PPE
- Reviewing, updating, and evaluating the overall effectiveness of PPE use, training, and policies

2.2 Managers and Supervisors must monitor the compliance of the procedures, ensure proper training of employees, and conduct periodic inspections. They must ensure the plan and ensuing procedures are enforced in their departments. Supervisors have the primary responsibility for implementing and enforcing PPE use and upholding PPE policies in their work area. This involves:

- Providing appropriate PPE and making it available to all employees
- Ensuring that employees are trained on the proper use, care, and cleaning of PPE.
- Ensuring that PPE training records are properly maintained in the employee's personnel file
- Ensuring that employees properly use and maintain their PPE, and follow PPE policies and rules
- Ensuring that defective or damaged PPE is immediately removed from service and/or replaced
- Notifying the **Safety Representative** when new hazards are discovered and when new processes and procedures are added, introduced or changed

2.3 Employees are Responsible for following established exposure control procedures. All employees are responsible for seeking clarification from their supervisor if they do not understand any personal protective equipment requirements. Employees are expected to report to work reasonably dressed to protect themselves during routine assignments and from exposure to any usual and/or predictable physical and environmental conditions found in the workplace. Employees are personally responsible to use good judgment and wear PPE as directed or whenever they are involved in a work activity where they can reasonably be expected to be exposed to a hazard, or where a hazard may cause injury or illness.

The PPE user is responsible for following the requirements of the PPE Policies. This involves:

- Properly wearing PPE as required.
 - Attending required training sessions
 - Properly caring for, cleaning, maintaining, and inspecting PPE as required
 - Following all company policies and rules and applicable manufacturer guidelines
 - Informing the supervisor of the need to repair or replace PPE
- **Not abiding by the very PPE rules employed to protect workers is a Violation of the Safety Policy. Employee's behaviors who repeatedly disregard the PPE policies and rules shall not be tolerated and may be subject to disciplinary action as outlined in the company Disciplinary Action Policy.**



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

3.0 HAZARD ASSESSMENTS, TASK ANALYSIS, & MONITORING

A hazard assessment of our work site(s) has been conducted in order to determine what hazards may be present or are likely to be present that would necessitate the use of PPE. A task analysis of the work our employees perform as well as operations commonly associated with our industry has also been conducted to determine the need for PPE.

3.1 The **Hazard Assessment** consisted of a walk-through survey of all departments and process/project areas to determine sources of hazards that could not be controlled by means of engineering or administrative controls.

Sources of Hazards Included: (summary of assessment results noted in ATTACHMENT II)

◆COMMON HAZARDS	◆◆LESS COMMON
Slip/Trip/Fall Hazards	Defective Equipment
Sharp Objects/Sharp Edges	Electrical Hazards
Repetitive Motions	Environmental Conditions (rain/temperature)
Working from Heights	Surface Conditions (produced from hot eqpt.)
Falling Objects/Overhead Work	Exposures to Chemicals/Radiation
Pinch Points and Points-of-Operations	
Using Hand Tools/Impact Tools	
Using Powered Tools/Actuated Equipment	

3.2 It will be the responsibility of our **Safety Representative** to revise or update any assessments, as necessary, by identifying and evaluating changes in activities and related tasks, reviewing accident records and near misses, inspection results, and reviewing the suitability of previously selected PPE. Additionally, the **Safety Representative** shall review the **PPE Hazard Assessments** annually. Any changes shall be updated into the revised copy of the hazard assessment. If changes in PPE are required, the **Safety Representative** shall take appropriate action.

The written hazard assessment will be documented and contain the following:

1. Workplace Identified
2. Responsible Party Documenting the Evaluation
3. Date(s) of the Assessment

3.3 **Supervisors/Managers are Required to Monitor** worksite conditions and tasks for changes in hazards or the introduction of processes or operations that create new hazards. If new hazards are discovered, they will conduct a task analysis and assess the need for PPE. Engineering controls shall always be the first line of defense. A worksite analysis will be conducted periodically for each task that requires employees to use PPE.

It is the responsibility of the Supervisor/Manager or **Safety Representative** to be aware of any changes in work conditions or tasks which would require a re-evaluation of our company's PPE requirements.



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

The **Safety Representative** shall conduct, review, and update the hazard assessment for PPE as follows:

- As Operations or Tasks Changes
- As New Equipment is Installed or New Process/Procedures are Introduced
- Post-Accident or Near Miss
- Whenever an Employee Requests It
- Annually to ensure Validity and Applicability of PPE

4.0 SELECTION GUIDLINES

Once the hazards of a workplace have been identified, the **Safety Representative** shall determine if the hazards can first be eliminated or reduced by methods other than PPE, such as changes in work practices, reducing the use of hazardous materials or processes, or applying engineering controls to reduce or eliminate hazards. If such methods are not adequate or feasible, then the **Safety Representative** will determine the suitability of the PPE presently available, and as necessary, will select new or additional equipment which ensures a level of protection greater than the minimum required to protect our employees from the hazards. Care will be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards will be recommended for purchase and use.

4.1 All Personal Protective Equipment will be of safe design and construction for the work to be performed and will be maintained in a sanitary and reliable condition. Only those items of protective equipment that meet the following will be procured or accepted for use:

- ▶ National Institute of Occupational Safety and Health (NIOSH)
- ▶ American National Standards Institute (ANSI)
- ▶ International Safety Equipment Association (ISEA)

Newly purchased PPE must conform to the updated NIOSH/ANSI/ISEA standards which have been incorporated into the PPE regulations, as follows:

- Eye and Face Protection ANSI/ISEA Z87.1-2015
- Head Protection ANSI Z89.1-2014
- Foot Protection ASTM F2413-05 (performance requirement)
- Hand Protection ANSI/ISEA 105-2016 (classification for testing & performance)

Affected employees whose jobs require the use of PPE will be informed of the PPE selection and will be provided PPE by the **Safety Representative** at no charge to the employee.

If required, examples of general PPE that the company may provide are:

Foot Protection- safety shoes/boots	Protective Clothing- aprons/coveralls/tyvek®
Eye/Face Protection- safety glasses/goggles/shields	Head Protection- hard hats
Hand Protection- gloves	Hearing Protection- ear plugs/earmuffs



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

▶ Careful consideration will be given to the comfort and proper fit of PPE in order to ensure that the right size is selected and that it will be used.

5.0 GENERAL PPE REQUIREMENTS ▶ Applicable as Required

5.1 Eye & Face Protection, ANSI/ISEA Z87.1-2015

All safety glasses/goggles shall be certified as meeting **ANSI/ISEA Z87.1-2015** and marked accordingly. For workers who wear prescription glasses, glasses meeting the **ANSI/ISEA Z87.1-2015** standard will be required, with polycarbonate lenses the preferred type (glass is not allowed). This may be accomplished by either prescription eyewear or providing appropriate safety glasses to be worn over the prescription glasses (generally for new employees and visitors).

❶ **Safety Glasses** shall be worn in all areas or departments where potential exposures to any airborne particulates exist. Such airborne particulates may include;

- Flying Debris/Dust/Particulates from Operations or Environmental Causes*
- Planned Airborne Materials/Debris as a Result of Work Operations or Tasks*
- Anticipated Accidental Airborne Materials/Debris from Equipment or Tooling Operations*

❷ **Face Shields** as additional protection are required to be used along with primary eye protective devices worn underneath when *severe exposures* to impacts or chemical splashes are present.

❸ **Goggles** are required under face shields when the potential for chemical splash exposures are present. Safety glasses or Goggles alone **CAN NOT** be used as a single protective device in these situations.

- Safety glasses shall be worn at all times during any operations or tasks whereas there may be a potential for any type of materials to become airborne and cause an eye related injury.
- The hazard assessment will be used to determine when specialized eye protection is required for tasks such as welding, grinding, brazing, and wet chemical operations.
- Welding/Brazing operations will require specialized tinted protection.
- Management will provide a selection of safety glasses approved for use at the facility and for related work operations and tasks.
- Accompanying side shields shall be securely affixed to the glasses, or otherwise incorporated into the design of the safety glasses if required.
- Management will provide a list of approved vendors and proper methods for employees to obtain prescription glasses. Eye exams are not covered by this policy and are not reimbursed.
- Adequate supplies shall be provided to minimize fogging and to clean safety glasses

▶ **Tinted Safety Glasses:** Safety glasses with tinted, amber, or other colored lenses are not allowed to be used indoors, at night, or where inadequate illumination is present. However, there are certain situations and job assignments that allow for such tinted lenses to be beneficial, such as;



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

- ❶ During welding/cutting/brazing operations
- ❷ When temporarily required by a physician or ophthalmologist (documentation required)
- ❸ On approval, during outdoor bright sunny situations when involved in critical operations/tasks
- ❹ Transitional lenses may be worn for outdoor environment operators of vehicles

**Consult the specific safety program and seek approval for tinted lenses in these and similar situations.*

☛ Forklift or other vehicle operators continually entering and exiting outdoor to indoor environments are not allowed to use transitional lenses. In these cases, transitional lenses do not convert from dark to light rapidly enough to be safe and result in temporary blindness for drivers entering buildings from outside during normal sunlight hours.

5.2 Head Protection, ANSI Z89.1-2014

- Hard hats shall be worn by all employees, visitors, vendors and contractors in areas that require protection from falling objects or where head bumps have been identified
 - Hard hats shall be worn with the brim facing forward at all times
 - Hard hats shall not be modified or otherwise compromised (e.g. drilling ventilation holes)
 - Hard hats shall not be worn beyond their useful life, as designated by the expiration date marked on the hat, or be worn if compromised, cracked, split, dented, damaged, or defected
- ☛ It is prohibited to wear hard hats backwards/in reverse, with rear facing bills, unless the particular hard hat is manufactured to be worn in such a manner. ***Supervisor/Manager Approval is Required.**

5.3 Foot Protection, ASTM F2413-05

- Safety shoes shall have slip-resistant soles of ample tread
- Safety shoes shall be comprised of a supportive shoe with a safety toe (e.g., steel or composite toe)
- Shoes shall cover the heel and toes and have no holes. (e.g., no sandals, flip-flops, open toe, etc.)
- In areas where potential slip hazards are present including those from wet, greasy, oily, slick floors, safety shoes shall be comprised of an ultra-slip resistant sole
- Safety shoes shall be cleaned to prevent buildup of material and excess debris in the treads
- Visitors are prohibited in those areas where safety shoes are required if not wearing such PPE.

5.4 Hand Protection, ANSI/ISEA 105-2016

- Arm and hand protection shall be used to protect hands from hazards including lacerations, punctures, impacts, pinch-points, chemical exposure, thermal hazards and ergonomic hazards.
- When protective gloves are required, gloves shall be worn on both hands (“**Both Hands Rule**”)
- All use of cutting blades, razor blades, utility knives, and industrial shears will require the use of cut-resistant gloves of the correct “**Cut Level**” to be worn.
- Cut resistant sleeves will be required to be worn in all operations where either force and/or speed of the cuts being made subject the arm to potential laceration.



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

• The use of specially designed “Safety Box Cutters” whereas no cutting surface is exposed may not require the use of hand protection.

6.0 PPE INSPECTIONS

6.1 No person shall don any PPE that is knowingly altered, defective, damaged, inaccurately fitted, or excessively worn whereas to negatively affect the protection factor/value which may potentially deem the equipment ineffective thus causing an injury or illness.

6.2 All PPE must be inspected, to some degree, prior to donning and use. The following are general criteria guideline checks for general PPE usage. Specific PPE requires additional checks outlined in those specific safety programs.

Observational Pre-Use Inspection:

- Safety Glasses shall be free from scratches, cracks, and blemishes that prevent a clear vision.
- Safety Glasses shall fit securely and comfortably across the bridge of the nose and over/around the ear.
- Face Shields shall be free from scratches, cracks, and blemishes, and fit securely to a heard hat or head
- Hard Hats shall be free from cracks/damage that may affect the durability or impact protection factor
- Hard Hat inner suspension systems shall be intact, properly functioning, and free from damage
- Hard Hat outer shells shall not be painted or excessively covered with stickers as to hide imperfections
- Gloves shall be free from holes, tears, damage or excessive wear
- Gloves shall fit securely and comfortably
- Earplugs shall be clean and fit securely and comfortably
- Safety Shoes shall be free from holes, tears, damage or excessive outer wear whereas protection is lost
- Safety Shoes shall have adequate sole tread intact for the task and slip-resistant treading in good shape

6.3 PPE that does not meet any of these reliability checks above should not be used, removed from service, repaired, replaced, or destroyed.

7.0 CLEANING, MAINTENANCE, & STORAGE

7.1 It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. Employees must inspect, clean, and maintain their PPE according to the manufacturers’ instructions before and after each use. Supervisors are responsible for ensuring that users properly maintain their PPE in good condition.

- Personal protective equipment must not be shared between employees until it has been properly cleaned and sanitized. PPE will be distributed for individual use whenever possible.
- If employees provide their own PPE, make sure that it is adequate for the work place hazards, and that it is maintained in a clean and reliable condition.
- Defective or damaged PPE will not be used and will be immediately discarded and replaced.



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

NOTE: Defective equipment can be worse than no PPE at all. Employees would avoid a hazardous situation if they knew they were not protected; but they would get closer to the hazard if they erroneously believed they were protected, and therefore would be at greater risk.

- It is also important to ensure that contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.

8.0 TRAINING

- Any employee required to wear PPE will receive training in the proper use and care of PPE before being allowed to perform work requiring the use of PPE. Periodic retraining will be offered to PPE users as needed. The training will include, but not necessarily be limited to, the following subjects:
 - When PPE is necessary to be worn
 - What PPE is necessary
 - How to properly don, doff, adjust, and wear PPE
 - The limitations of the PPE
 - The proper care, maintenance, useful life, and disposal of the PPE
- After the training, the employees will demonstrate that they understand when and how to use PPE properly, or they will be retrained.
- Training of each employee will be documented and kept on file. The document certifies that the employee has received and understood the required training on the specific PPE he/she will be using and includes the name of the person trained, the date(s) of training and the subject of the training.
- The need for retraining will be indicated when:
 - an employee's work habits or knowledge indicates a lack of the necessary understanding, motivation, and skills required to use the PPE (i.e., uses PPE improperly)
 - new equipment is installed
 - changes in the work place make previous training out-of-date
 - changes in the types of PPE to be used make previous training out-of-date

9.0 CONTRATORS, VENDORS & VISITOR PPE

Contractors, vendors, and visitors shall also comply with the PPE requirements set forth in this plan. Common procedures shall be adopted and applied accordingly and verified by the responsible party or Safety Representative.



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

PPE Hazard Assessment/Task Analysis

COMPANY:		TASK ID:
JOB TASK DESCRIPTION:		JOB LOCATION:
		JOB TITLE: <i>*who performs this task</i>
PREPARED BY NAME:	DATE PREPARED:	REVIEWED/REVISED DATE: <i>*if applicable</i>
APPROVED BY NAME/TITLE:	DATE APPROVED:	APPROVAL SIGNATURE:

IDENTIFY ALL POTENTIAL HAZARDS: *check all that apply

Head	<input type="checkbox"/> Falling Objects	<input type="checkbox"/> Electrical Shock	<input type="checkbox"/> Impact By	<input type="checkbox"/> Other:
Eyes/Face	<input type="checkbox"/> Airborne Dust/Debris	<input type="checkbox"/> Chemical Vapor/Mists	<input type="checkbox"/> Chemical Splash	<input type="checkbox"/> Other:
Hand/Arm	<input type="checkbox"/> Sharp Puncture	<input type="checkbox"/> Caught In Moving Part	<input type="checkbox"/> Impact By	<input type="checkbox"/> Other:
Foot	<input type="checkbox"/> Sharp Edge/ Puncture	<input type="checkbox"/> Slip/Trip/Fall	<input type="checkbox"/> Impact By	<input type="checkbox"/> Other:
Harmful Noise	<input type="checkbox"/> 85dB-90dB	<input type="checkbox"/> 90dB+	<input type="checkbox"/> Ear Plugs	<input type="checkbox"/> Ear Muffs
Body	<input type="checkbox"/> Burn/Heat	<input type="checkbox"/> Electrical Shock	<input type="checkbox"/> Impact By	<input type="checkbox"/> Other:
Respiratory	<input type="checkbox"/> Chemical Vapors	<input type="checkbox"/> Welding Vapors/Gases	<input type="checkbox"/> Chemical Mists	<input type="checkbox"/> Other:
Fall From Heights	<input type="checkbox"/> Positioning Belt	<input type="checkbox"/> Fall Limiting	<input type="checkbox"/> Fall Arrest	<input type="checkbox"/> Other:
Fall From Ladder	<input type="checkbox"/> Sparks/Slag	<input type="checkbox"/> Materials/Debris	<input type="checkbox"/> Tool/Equipment	<input type="checkbox"/> Other:
Struck-By	<input type="checkbox"/> Sparks/Slag	<input type="checkbox"/> Materials/Debris	<input type="checkbox"/> Tool/Equipment	<input type="checkbox"/> Other:

REQUIRED Personal Protection Equipment (PPE): *check all that apply

PROTECTION:	TYPE:			
Head	<input type="checkbox"/> Hard Hat	<input type="checkbox"/> Bump Cap		
Eyes/Face	<input type="checkbox"/> Safety Glasses	<input type="checkbox"/> Safety Goggles	<input type="checkbox"/> Face Shield	<input type="checkbox"/> UV Protection
Hand	<input type="checkbox"/> Utility Grip Gloves	<input type="checkbox"/> Puncture/Cut Resistant	<input type="checkbox"/> Impact/Anti-Vibration	<input type="checkbox"/> Latex/Nitrile Gloves
Foot	<input type="checkbox"/> Non-Slip	<input type="checkbox"/> Steel/Composite Toe	<input type="checkbox"/> Puncture Resistant	<input type="checkbox"/> Waterproof/Rubber
Hearing	<input type="checkbox"/> Ear Plugs *inside canal	<input type="checkbox"/> Ear Muffs *outside canal		
Fall Prevention	<input type="checkbox"/> Fall Arrest System	<input type="checkbox"/> Fall Restraint/Limiting	<input type="checkbox"/> Body Positioning Belt	<i>▶not for fall protection</i>
Respiratory	<input type="checkbox"/> N95 Filtering Facepiece	<input type="checkbox"/> Half-Face Form Fitting	<input type="checkbox"/> Full-Face Form Fitting	<input type="checkbox"/> Welding Full-Face
Welding	<input type="checkbox"/> Leather Jacket	<input type="checkbox"/> Leather Apron	<input type="checkbox"/> Gauntlet Gloves	<input type="checkbox"/> Welding Shield
Chemical	<input type="checkbox"/> Chm Resistant Suit	<input type="checkbox"/> Chm Resistant Gloves	<input type="checkbox"/> Chm Resistant Sleeves	<input type="checkbox"/> Chm Resistant Boots
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

LIST REQUIRED / RECOMMENDED TOOLS & EQUIPMENT:

1.	•	•
	•	•
	•	•
2.	•	•
	•	•
	•	•



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

PPE TRAINING ACKNOWLEDGMENT

I acknowledge that I have received training and instruction on the company's PPE Plan & Procedures. Instructional training included but not limited to the following:

◆ ***Limitations of Personal Protective Equipment:*** *PPE alone cannot protect the employee from all work related hazards and is the last line of defense.*

◆ ***Identified Potential Workplace Hazards:*** *And the types of PPE that the employee is required to use to protect against known these hazards, and how the PPE will protect the employee while engaged in his/her tasks.*

◆ ***When to Wear:*** *Required circumstances, tasks, or operations mandating donning PPE.*

◆ ***How to Use:*** *The proper method in using the PPE, including putting it on (donning), taking it off (doffing), and adjusting it (if applicable) for a comfortable and effective fit.*

◆ ***Maintaining:*** *How to properly care for, inspect, and store the PPE, including being aware of defective and damaged equipment, signs of abnormal wear, and properly cleaning, disinfecting, and disposal of contaminated PPE.*

I fully understand the PPE requirements as explained during this training session and agree to follow the safe work practices when such hazards mandate PPE that has been presented. It is my responsibility to contact my Supervisors/Manager or company Safety Representative for further guidance.

Employee Name:	Job Title:
Signature:	Date:

By signing below, the trainer certifies that the employee has shown an understanding of the training and that the employee has demonstrated competency to use the PPE properly.

Trainer Name:	Job Title:
Signature:	Date:



PERSONAL PROTECTIVE EQUIPMENT (PPE) PROCEDURES

PPE TRAINING ACKNOWLEDGMENT

I acknowledge that I have received training and instruction on the company's PPE Plan & Procedures. Instructional training included but not limited to the following:

- ◆ ***Limitations of Personal Protective Equipment:*** *PPE alone cannot protect the employee from all work related hazards and is the last line of defense.*
- ◆ ***Identified Potential Workplace Hazards:*** *And the types of PPE that the employee is required to use to protect against known these hazards, and how the PPE will protect the employee while engaged in his/her tasks.*
- ◆ ***When to Wear:*** *Required circumstances, tasks, or operations mandating donning PPE.*
- ◆ ***How to Use:*** *The proper method in using the PPE, including putting it on (donning), taking it off (doffing), and adjusting it (if applicable) for a comfortable and effective fit.*
- ◆ ***Maintaining:*** *How to properly care for, inspect, and store the PPE, including being aware of defective and damaged equipment, signs of abnormal wear, and properly cleaning, disinfecting, and disposal of contaminated PPE.*

I fully understand the PPE requirements as explained during this training session and agree to follow the safe work practices when such hazards mandate PPE that has been presented. It is my responsibility to contact my Supervisors/Manager or company Safety Representative for further guidance.

Employee Name:	Job Title:
Signature:	Date:

By signing below, the trainer certifies that the employee has shown an understanding of the training and that the employee has demonstrated competency to use the PPE properly.

Trainer Name:	Job Title:
Signature:	Date:

§3380. Personal Protective Devices.

(a)(1) The terms "protection" and "protective" where modified by the words head, eye, body, hand, foot and as used in subsection (d), per the orders in this article mean the safeguarding obtained by safety devices and safeguards of the proper type for the exposure and of such design, strength and quality as to eliminate, preclude or mitigate the hazard.

(2) Personal protective equipment shall be approved for its intended use as provided in Section 3206 of these Orders.

(b) Protective equipment shall be distinctly marked so as to facilitate identification of the manufacturer.

EXCEPTION: Employer manufactured shields, barriers, etc.

(c) The employer shall assure that the employee is instructed and uses protective equipment in accordance with the manufacturer's instructions.

(d) The employer shall assure that all required safety devices and safeguards, whether employer or employee provided, including personal protective equipment for the eyes, face, head, hand, foot, and extremities (limbs), protective clothing, respiratory protection, protective shields and barriers, comply with the applicable Title 8 standards and are maintained in a safe, sanitary condition.

(e) Protectors shall be of such design, fit and durability as to provide adequate protection against the hazards for which they are designed. They shall be reasonably comfortable and shall not unduly encumber the employee's movements necessary to perform his or her work.

(f) Hazard assessment and equipment selection.

(1) The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:

(A) Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;

(B) Communicate selection decisions to each affected employee; and,

(C) Select PPE that properly fits each affected employee.

NOTE: Non-mandatory Appendix A contains an example of procedures that would comply with the requirement for a hazard assessment.

(2) The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.

(3) Defective and damaged equipment. Defective or damaged personal protective equipment shall not be used.



(4) **Training.** The employer shall provide training to each employee who is required by this section to use PPE. Each such employee shall be trained to know at least the following:

- (A) **When PPE is necessary;**
- (B) **What PPE is necessary;**
- (C) **How to properly don, doff, adjust, and wear PPE;**
- (D) **The limitations of the PPE; and,**
- (E) **The proper care, maintenance, useful life and disposal of the PPE.**

(5) Each affected employee shall **demonstrate an understanding** of the training specified in subsection (f)(4) of this section, and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

(6) When the employer has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by subsection (f)(5) of this section, the employer shall retrain each such employee. **Circumstances where retraining is required** include, but are not limited to, situations where:

- (A) Changes in the workplace render previous training obsolete; or
- (B) Changes in the types of PPE to be used render previous training obsolete; or
- (C) Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

(7) The **employer shall verify that each affected employee has received and understood the required training** through a written certification that contains the name of each employee trained, the date(s) of training, and that identifies the subject of the certification.

(8) Subsections (f)(1) and (2) and (f)(4) through (7) of this section apply only to Sections 3381, 3382, 3384 and 3385 of these Orders. Subsections (f)(1) and (2) and (f)(4) through (7) of this section do not apply to Section 5144 of these Orders and Section 2940.6 of the High Voltage Electrical Safety Orders. Subsection (f) does not apply to workplace operations regulated by the Construction Safety Orders or the Mine Safety Orders.

Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

-
1. Repealer and new section filed 7-11-74; effective thirtieth day thereafter (Register 74, No. 28).
 2. Amendment of subsection (c) filed 4-27-79; effective thirtieth day thereafter (Register 79, No. 17).
 3. Amendment of subsection (d) and amendment of Note filed 12-30-2004; operative 1-29-2005 (Register 2004, No. 53).
 4. New subsections (f)-(f)(8) filed 4-13-2011; operative 4-13-2011. Submitted to OAL for filing with the Secretary of State and printing only pursuant to Labor Code section 142.3(a)(3) (Register 2011, No. 15).
 5. Amendment filed 12-1-2014; operative 4-1-2015 (Register 2014, No. 49).



Occupational
Safety and Health
Administration

Personal Protective Equipment



OSHA 3151-12R 2003

This informational booklet provides a general overview of a particular topic related to OSHA standards. It does not alter or determine compliance responsibilities in OSHA standards or the *Occupational Safety and Health Act of 1970*. Because interpretations and enforcement policy may change over time, you should consult current OSHA administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the Courts for additional guidance on OSHA compliance requirements.

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Personal Protective Equipment



U.S. Department of Labor

Occupational Safety and Health Administration

OSHA 3151-12R
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Introduction

Hazards exist in every workplace in many different forms: sharp edges, falling objects, flying sparks, chemicals, noise and a myriad of other potentially dangerous situations. The Occupational Safety and Health Administration (OSHA) requires that employers protect their employees from workplace hazards that can cause injury.

Controlling a hazard at its source is the best way to protect employees. Depending on the hazard or workplace conditions, OSHA recommends the use of engineering or work practice controls to manage or eliminate hazards to the greatest extent possible. For example, building a barrier between the hazard and the employees is an engineering control; changing the way in which employees perform their work is a work practice control.

When engineering, work practice and administrative controls are not feasible or do not provide sufficient protection, employers must provide personal protective equipment (PPE) to their employees and ensure its use. Personal protective equipment, commonly referred to as "PPE", is equipment worn to minimize exposure to a variety of hazards. Examples of PPE include such items as gloves, foot and eye protection, protective hearing devices (earplugs, muffs) hard hats, respirators and full body suits.

This guide will help both employers and employees do the following:

- Understand the types of PPE.
- Know the basics of conducting a "hazard assessment" of the workplace.
- Select appropriate PPE for a variety of circumstances.
- Understand what kind of training is needed in the proper use and care of PPE.

The information in this guide is general in nature and does not address all workplace hazards or PPE requirements. The information, methods and procedures in this guide are based on the OSHA requirements for PPE as set forth in the Code of Federal Regulations (CFR) at 29 CFR 1910.132 (General requirements); 29 CFR 1910.133 (Eye and face protection); 29 CFR 1910.135 (Head protection); 29 CFR 1910.136 (Foot protection); 29 CFR 1910.137 (Electrical protective equipment); 29 CFR 1910.138 (Hand protection); and regulations that cover the construction industry, at

29 CFR 1926.95 (Criteria for personal protective equipment); 29 CFR 1926.96 (Occupational foot protection); 29 CFR 1926.100 (Head protection); 29 CFR 1926.101 (Hearing protection); and 29 CFR 1926.102 (Eye and face protection); and for the maritime industry at 29 CFR 1915.152 (General requirements); 29 CFR 1915.153 (Eye and face protection); 29 CFR 1915.155 (Head protection); 29 CFR 1915.156 (Foot protection); and 29 CFR 1915.157 (Hand and body protection).

This guide does not address PPE requirements related to respiratory protection (29 CFR 1910.134) as this information is covered in detail in OSHA Publication 3079, "Respiratory Protection". There is a brief discussion of hearing protection in this publication but users should refer to OSHA Publication 3074, "Hearing Conservation" for more detailed information on the requirements to protect employees' hearing in the workplace.

The Requirement for PPE

To ensure the greatest possible protection for employees in the workplace, the cooperative efforts of both employers and employees will help in establishing and maintaining a safe and healthful work environment.

In general, employers are responsible for:

- Performing a "hazard assessment" of the workplace to identify and control physical and health hazards.
- Identifying and providing appropriate PPE for employees.
- Training employees in the use and care of the PPE.
- Maintaining PPE, including replacing worn or damaged PPE.
- Periodically reviewing, updating and evaluating the effectiveness of the PPE program.

In general, employees should:

- Properly wear PPE,
- Attend training sessions on PPE,
- Care for, clean and maintain PPE, and
- Inform a supervisor of the need to repair or replace PPE.

Specific requirements for PPE are presented in many different OSHA standards, published in 29 CFR. Some standards require that employers provide PPE at no cost to the employee while others simply state that the employer must provide PPE. Appendix A at page 40 lists those standards that require the employer to provide PPE and those that require the employer to provide PPE at no cost to the employee.

The Hazard Assessment

A first critical step in developing a comprehensive safety and health program is to identify physical and health hazards in the workplace. This process is known as a "hazard assessment." Potential hazards may be physical or health-related and a comprehensive hazard assessment should identify hazards in both categories. Examples of physical hazards include moving objects, fluctuating temperatures, high intensity lighting, rolling or pinching objects, electrical connections and sharp edges. Examples of health hazards include overexposure to harmful dusts, chemicals or radiation.

The hazard assessment should begin with a walk-through survey of the facility to develop a list of potential hazards in the following basic hazard categories:

- Impact,
- Penetration,
- Compression (roll-over),
- Chemical,
- Heat/cold,
- Harmful dust,
- Light (optical) radiation, and
- Biologic.

In addition to noting the basic layout of the facility and reviewing any history of occupational illnesses or injuries, things to look for during the walk-through survey include:

- Sources of electricity.
- Sources of motion such as machines or processes where

movement may exist that could result in an impact between personnel and equipment.

- Sources of high temperatures that could result in burns, eye injuries or fire.
- Types of chemicals used in the workplace.
- Sources of harmful dusts.
- Sources of light radiation, such as welding, brazing, cutting, furnaces, heat treating, high intensity lights, etc.
- The potential for falling or dropping objects.
- Sharp objects that could poke, cut, stab or puncture.
- Biologic hazards such as blood or other potentially infected material.

When the walk-through is complete, the employer should organize and analyze the data so that it may be efficiently used in determining the proper types of PPE required at the worksite. The employer should become aware of the different types of PPE available and the levels of protection offered. It is definitely a good idea to select PPE that will provide a level of protection greater than the minimum required to protect employees from hazards.

The workplace should be periodically reassessed for any changes in conditions, equipment or operating procedures that could affect occupational hazards. This periodic reassessment should also include a review of injury and illness records to spot any trends or areas of concern and taking appropriate corrective action. The suitability of existing PPE, including an evaluation of its condition and age, should be included in the reassessment.

Documentation of the hazard assessment is required through a written certification that includes the following information:

- Identification of the workplace evaluated;
- Name of the person conducting the assessment;
- Date of the assessment; and
- Identification of the document certifying completion of the hazard assessment.

Selecting PPE

All PPE clothing and equipment should be of safe design and construction, and should be maintained in a clean and reliable fashion. Employers should take the fit and comfort of PPE into consideration when selecting appropriate items for their workplace. PPE that fits well and is comfortable to wear will encourage employee use of PPE. Most protective devices are available in multiple sizes and care should be taken to select the proper size for each employee. If several different types of PPE are worn together, make sure they are compatible. If PPE does not fit properly, it can make the difference between being safely covered or dangerously exposed. It may not provide the level of protection desired and may discourage employee use.

OSHA requires that many categories of PPE meet or be equivalent to standards developed by the American National Standards Institute (ANSI). ANSI has been preparing safety standards since the 1920s, when the first safety standard was approved to protect the heads and eyes of industrial workers. Employers who need to provide PPE in the categories listed below must make certain that any new equipment procured meets the cited ANSI standard. Existing PPE stocks must meet the ANSI standard in effect at the time of its manufacture or provide protection equivalent to PPE manufactured to the ANSI criteria. Employers should inform employees who provide their own PPE of the employer's selection decisions and ensure that any employee-owned PPE used in the workplace conforms to the employer's criteria, based on the hazard assessment, OSHA requirements and ANSI standards. OSHA requires PPE to meet the following ANSI standards:

- Eye and Face Protection: ANSI Z87.1-1989 (USA Standard for Occupational and Educational Eye and Face Protection).
- Head Protection: ANSI Z89.1-1986.
- Foot Protection: ANSI Z41.1-1991.

For hand protection, there is no ANSI standard for gloves but OSHA recommends that selection be based upon the tasks to be performed and the performance and construction characteristics of the glove material. For protection against chemicals, glove selection

must be based on the chemicals encountered, the chemical resistance and the physical properties of the glove material.

Training Employees in the Proper Use of PPE

Employers are required to train each employee who must use PPE. Employees must be trained to know at least the following:

- When PPE is necessary.
- What PPE is necessary.
- How to properly put on, take off, adjust and wear the PPE.
- The limitations of the PPE.
- Proper care, maintenance, useful life and disposal of PPE.

Employers should make sure that each employee demonstrates an understanding of the PPE training as well as the ability to properly wear and use PPE before they are allowed to perform work requiring the use of the PPE. If an employer believes that a previously trained employee is not demonstrating the proper understanding and skill level in the use of PPE, that employee should receive retraining. Other situations that require additional or retraining of employees include the following circumstances: changes in the workplace or in the type of required PPE that make prior training obsolete.

The employer must document the training of each employee required to wear or use PPE by preparing a certification containing the name of each employee trained, the date of training and a clear identification of the subject of the certification.

Eye and Face Protection

Employees can be exposed to a large number of hazards that pose danger to their eyes and face. OSHA requires employers to ensure that employees have appropriate eye or face protection if they are exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, potentially infected material or potentially harmful light radiation.

Many occupational eye injuries occur because workers are not wearing any eye protection while others result from wearing improper or poorly fitting eye protection. Employers must be sure that their employees wear appropriate eye and face protection and that the selected form of protection is appropriate to the work being performed and properly fits each worker exposed to the hazard.

Prescription Lenses

Everyday use of prescription corrective lenses will not provide adequate protection against most occupational eye and face hazards, so employers must make sure that employees with corrective lenses either wear eye protection that incorporates the prescription into the design or wear additional eye protection over their prescription lenses. It is important to ensure that the protective eyewear does not disturb the proper positioning of the prescription lenses so that the employee's vision will not be inhibited or limited. Also, employees who wear contact lenses must wear eye or face PPE when working in hazardous conditions.

Eye Protection for Exposed Workers

OSHA suggests that eye protection be routinely considered for use by carpenters, electricians, machinists, mechanics, millwrights, plumbers and pipefitters, sheetmetal workers and tinsmiths, assemblers, sanders, grinding machine operators, sawyers, welders, laborers, chemical process operators and handlers, and timber cutting and logging workers. Employers of workers in other job categories should decide whether there is a need for eye and face PPE through a hazard assessment.

Examples of potential eye or face injuries include:

- Dust, dirt, metal or wood chips entering the eye from activities such as chipping, grinding, sawing, hammering, the use of power tools or even strong wind forces.
- Chemical splashes from corrosive substances, hot liquids, solvents or other hazardous solutions.
- Objects swinging into the eye or face, such as tree limbs, chains, tools or ropes.
- Radiant energy from welding, harmful rays from the use of lasers or other radiant light (as well as heat, glare, sparks, splash and flying particles).

Types of Eye Protection

Selecting the most suitable eye and face protection for employees should take into consideration the following elements:

- Ability to protect against specific workplace hazards.
- Should fit properly and be reasonably comfortable to wear.
- Should provide unrestricted vision and movement.
- Should be durable and cleanable.
- Should allow unrestricted functioning of any other required PPE.

The eye and face protection selected for employee use must clearly identify the manufacturer. Any new eye and face protective devices must comply with ANSI Z87.1-1989 or be at least as effective as this standard requires. Any equipment purchased before this requirement took effect on July 5, 1994, must comply with the earlier ANSI Standard (ANSI Z87.1-1968) or be shown to be equally effective.

An employer may choose to provide one pair of protective eyewear for each position rather than individual eyewear for each employee. If this is done, the employer must make sure that employees disinfect shared protective eyewear after each use. Protective eyewear with corrective lenses may only be used by the employee for whom the corrective prescription was issued and may not be shared among employees.

Some of the most common types of eye and face protection include the following:

- **Safety spectacles.** These protective eyeglasses have safety frames constructed of metal or plastic and impact-resistant lenses. Side shields are available on some models.
- **Goggles.** These are tight-fitting eye protection that completely cover the eyes, eye sockets and the facial area immediately surrounding the eyes and provide protection from impact, dust and splashes. Some goggles will fit over corrective lenses.
- **Welding shields.** Constructed of vulcanized fiber or fiberglass and fitted with a filtered lens, welding shields protect eyes from burns caused by infrared or intense radiant light; they also protect both the eyes and face from flying sparks, metal spatter and slag chips produced during welding, brazing, soldering and

cutting operations. OSHA requires filter lenses to have a shade number appropriate to protect against the specific hazards of the work being performed in order to protect against harmful light radiation.

- **Laser safety goggles.** These specialty goggles protect against intense concentrations of light produced by lasers. The type of laser safety goggles an employer chooses will depend upon the equipment and operating conditions in the workplace.
- **Face shields.** These transparent sheets of plastic extend from the eyebrows to below the chin and across the entire width of the employee's head. Some are polarized for glare protection. Face shields protect against nuisance dusts and potential splashes or sprays of hazardous liquids but will not provide adequate protection against impact hazards. Face shields used in combination with goggles or safety spectacles will provide additional protection against impact hazards.

Each type of protective eyewear is designed to protect against specific hazards. Employers can identify the specific workplace hazards that threaten employees' eyes and faces by completing a hazard assessment as outlined in the earlier section.

Welding Operations

The intense light associated with welding operations can cause serious and sometimes permanent eye damage if operators do not wear proper eye protection. The intensity of light or radiant energy produced by welding, cutting or brazing operations varies according to a number of factors including the task producing the light, the electrode size and the arc current. The following table shows the minimum protective shades for a variety of welding, cutting and brazing operations in general industry and in the shipbuilding industry.

Table 1
Filter Lenses for Protection Against Radiant Energy

Operations	Electrode size in 1/32" (0.8mm)	Arc current	Minimum* protective shade
Shielded metal arc welding	< 3	< 60	7
	3 - 5	60 - 160	8
	5 - 8	160 - 250	10
	> 8	250 - 550	11
Gas metal arc welding and flux cored arc welding		< 60	7
		60 - 160	10
		160 - 250	10
		250 - 500	10
Gas tungsten arc welding		< 50	8
		50 - 150	8
		150 - 500	10
Air carbon	(light)	< 500	10
Arc cutting	(heavy)	500 - 1,000	11
Plasma arc welding		< 20	6
		20 - 100	8
		100 - 400	10
		400 - 800	11
Plasma arc cutting	(light)**	< 300	8
	(medium)**	300 - 400	9
	(heavy)**	400 - 800	10
Torch brazing			3
Torch soldering			2
Carbon arc welding			14

Table 1 (continued)
Filter Lenses for Protection Against Radiant Energy

Operations	Plate thickness inches	Plate thickness mm	Minimum* protective shade
Gas welding: Light	< 1/8	< 3.2	4
Gas welding: Medium	1/8 - 1/2	3.2 - 12.7	5
Gas welding: Heavy	> 1/2	> 12.7	6
Oxygen cutting: Light	< 1	< 25	3
Oxygen cutting: Medium	1 - 6	25 - 150	4
Oxygen cutting: Heavy	> 6	> 150	5

Source: 29 CFR 1910.133(a)(5).

* As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.

** These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the workpiece.

The construction industry has separate requirements for filter lens protective levels for specific types of welding operations, as indicated in the table below:

Table 2
Construction Industry Requirements for Filter Lens Shade Numbers for Protection Against Radiant Energy

Welding Operation	Shade Number
Shielded metal-arc welding 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	10
Gas-shielded arc welding (nonferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	11
Gas-shielded arc welding (ferrous) 1/16-, 3/32-, 1/8-, 5/32-inch diameter electrodes	12
Shielded metal-arc welding 3/16-, 7/32-, 1/4-inch diameter electrodes	12
5/16-, 3/8-inch diameter electrodes	14
Atomic hydrogen welding	10 - 14
Carbon-arc welding	14
Soldering	2
Torch brazing	3 or 4
Light cutting, up to 1 inch	3 or 4
Medium cutting, 1 to 6 inches	4 or 5
Heavy cutting, more than 6 inches	5 or 6
Gas welding (light), up to 1/8-inch	4 or 5
Gas welding (medium), 1/8- to 1/2-inch	5 or 6
Gas welding (heavy), more than 1/2-inch	6 or 8

Source: 29 CFR 1926.102(b)(1).

Laser Operations

Laser light radiation can be extremely dangerous to the unprotected eye and direct or reflected beams can cause permanent eye damage. Laser retinal burns can be painless, so it is essential that all personnel in or around laser operations wear appropriate eye protection.

Laser safety goggles should protect for the specific wavelength of the laser and must be of sufficient optical density for the energy involved. Safety goggles intended for use with laser beams must be labeled with the laser wavelengths for which they are intended to be used, the optical density of those wavelengths and the visible light transmission.

The table below lists maximum power or energy densities and appropriate protection levels for optical densities 5 through 8.

Table 3
Selecting Laser Safety Glass

Intensity, CW maximum power density (watts/cm ²)	Attenuation	
	Optical density (O.D.)	Attenuation factor
10 ⁻²	5	10 ⁵
10 ⁻¹	6	10 ⁶
1.0	7	10 ⁷
10.0	8	10 ⁸

Source: 29 CFR 1926.102(b)(2).

Head Protection

Protecting employees from potential head injuries is a key element of any safety program. A head injury can impair an employee for life or it can be fatal. Wearing a safety helmet or hard hat is one of the easiest ways to protect an employee's head from

injury. Hard hats can protect employees from impact and penetration hazards as well as from electrical shock and burn hazards.

Employers must ensure that their employees wear head protection if any of the following apply:

- Objects might fall from above and strike them on the head;
- They might bump their heads against fixed objects, such as exposed pipes or beams; or
- There is a possibility of accidental head contact with electrical hazards.

Some examples of occupations in which employees should be required to wear head protection include construction workers, carpenters, electricians, linemen, plumbers and pipefitters, timber and log cutters, welders, among many others. Whenever there is a danger of objects falling from above, such as working below others who are using tools or working under a conveyor belt, head protection must be worn. Hard hats must be worn with the bill forward to protect employees properly.

In general, protective helmets or hard hats should do the following:

- Resist penetration by objects.
- Absorb the shock of a blow.
- Be water-resistant and slow burning.
- Have clear instructions explaining proper adjustment and replacement of the suspension and headband.

Hard hats must have a hard outer shell and a shock-absorbing lining that incorporates a headband and straps that suspend the shell from 1 to 1 1/4 inches (2.54 cm to 3.18 cm) away from the head. This type of design provides shock absorption during an impact and ventilation during normal wear.

Protective headgear must meet ANSI Standard Z89.1-1986 (Protective Headgear for Industrial Workers) or provide an equivalent level of protection. Helmets purchased before July 5, 1994 must comply with the earlier ANSI Standard (Z89.1-1969) or provide equivalent protection.

Types of Hard Hats

There are many types of hard hats available in the marketplace today. In addition to selecting protective headgear that meets ANSI standard requirements, employers should ensure that employees wear hard hats that provide appropriate protection against potential workplace hazards. It is important for employers to understand all potential hazards when making this selection, including electrical hazards. This can be done through a comprehensive hazard analysis and an awareness of the different types of protective headgear available.

Hard hats are divided into three industrial classes:

- **Class A hard hats** provide impact and penetration resistance along with limited voltage protection (up to 2,200 volts).
- **Class B hard hats** provide the highest level of protection against electrical hazards, with high-voltage shock and burn protection (up to 20,000 volts). They also provide protection from impact and penetration hazards by flying/falling objects.
- **Class C hard hats** provide lightweight comfort and impact protection but offer no protection from electrical hazards.

Another class of protective headgear on the market is called a “bump hat,” designed for use in areas with low head clearance. They are recommended for areas where protection is needed from head bumps and lacerations. These are not designed to protect against falling or flying objects and are not ANSI approved. It is essential to check the type of hard hat employees are using to ensure that the equipment provides appropriate protection. Each hat should bear a label inside the shell that lists the manufacturer, the ANSI designation and the class of the hat.

Size and Care Considerations

Head protection that is either too large or too small is inappropriate for use, even if it meets all other requirements. Protective headgear must fit appropriately on the body and for the head size of each individual. Most protective headgear comes in a variety of sizes with adjustable headbands to ensure a proper fit (many adjust in 1/8-inch increments). A proper fit should allow sufficient clearance between the shell and the suspension system for

ventilation and distribution of an impact. The hat should not bind, slip, fall off or irritate the skin.

Some protective headgear allows for the use of various accessories to help employees deal with changing environmental conditions, such as slots for earmuffs, safety glasses, face shields and mounted lights. Optional brims may provide additional protection from the sun and some hats have channels that guide rainwater away from the face. Protective headgear accessories must not compromise the safety elements of the equipment.

Periodic cleaning and inspection will extend the useful life of protective headgear. A daily inspection of the hard hat shell, suspension system and other accessories for holes, cracks, tears or other damage that might compromise the protective value of the hat is essential. Paints, paint thinners and some cleaning agents can weaken the shells of hard hats and may eliminate electrical resistance. Consult the helmet manufacturer for information on the effects of paint and cleaning materials on their hard hats. Never drill holes, paint or apply labels to protective headgear as this may reduce the integrity of the protection. Do not store protective headgear in direct sunlight, such as on the rear window shelf of a car, since sunlight and extreme heat can damage them.

Hard hats with any of the following defects should be removed from service and replaced:

- Perforation, cracking, or deformity of the brim or shell;
- Indication of exposure of the brim or shell to heat, chemicals or ultraviolet light and other radiation (in addition to a loss of surface gloss, such signs include chalking or flaking).

Always replace a hard hat if it sustains an impact, even if damage is not noticeable. Suspension systems are offered as replacement parts and should be replaced when damaged or when excessive wear is noticed. It is not necessary to replace the entire hard hat when deterioration or tears of the suspension systems are noticed.

Foot and Leg Protection

Employees who face possible foot or leg injuries from falling or rolling objects or from crushing or penetrating materials should

wear protective footwear. Also, employees whose work involves exposure to hot substances or corrosive or poisonous materials must have protective gear to cover exposed body parts, including legs and feet. If an employee's feet may be exposed to electrical hazards, non-conductive footwear should be worn. On the other hand, workplace exposure to static electricity may necessitate the use of conductive footwear.

Examples of situations in which an employee should wear foot and/or leg protection include:

- When heavy objects such as barrels or tools might roll onto or fall on the employee's feet;
- Working with sharp objects such as nails or spikes that could pierce the soles or uppers of ordinary shoes;
- Exposure to molten metal that might splash on feet or legs;
- Working on or around hot, wet or slippery surfaces; and
- Working when electrical hazards are present.

Safety footwear must meet ANSI minimum compression and impact performance standards in ANSI Z41-1991 (American National Standard for Personal Protection-Protective Footwear) or provide equivalent protection. Footwear purchased before July 5, 1994, must meet or provide equivalent protection to the earlier ANSI Standard (ANSI Z41.1-1967). All ANSI approved footwear has a protective toe and offers impact and compression protection. But the type and amount of protection is not always the same. Different footwear protects in different ways. Check the product's labeling or consult the manufacturer to make sure the footwear will protect the user from the hazards they face.

Foot and leg protection choices include the following:

- **Leggings** protect the lower legs and feet from heat hazards such as molten metal or welding sparks. Safety snaps allow leggings to be removed quickly.
- **Metatarsal guards** protect the instep area from impact and compression. Made of aluminum, steel, fiber or plastic, these guards may be strapped to the outside of shoes.
- **Toe guards** fit over the toes of regular shoes to protect the toes from impact and compression hazards. They may be made of steel, aluminum or plastic.

- **Combination foot and shin guards** protect the lower legs and feet, and may be used in combination with toe guards when greater protection is needed.
- **Safety shoes** have impact-resistant toes and heat-resistant soles that protect the feet against hot work surfaces common in roofing, paving and hot metal industries. The metal insoles of some safety shoes protect against puncture wounds. Safety shoes may also be designed to be electrically conductive to prevent the buildup of static electricity in areas with the potential for explosive atmospheres or nonconductive to protect workers from workplace electrical hazards.

Special Purpose Shoes

Electrically conductive shoes provide protection against the buildup of static electricity. Employees working in explosive and hazardous locations such as explosives manufacturing facilities or grain elevators must wear conductive shoes to reduce the risk of static electricity buildup on the body that could produce a spark and cause an explosion or fire. Foot powder should not be used in conjunction with protective conductive footwear because it provides insulation, reducing the conductive ability of the shoes. Silk, wool and nylon socks can produce static electricity and should not be worn with conductive footwear. Conductive shoes must be removed when the task requiring their use is completed. Note: Employees exposed to electrical hazards must never wear conductive shoes.

Electrical hazard, safety-toe shoes are nonconductive and will prevent the wearers' feet from completing an electrical circuit to the ground. These shoes can protect against open circuits of up to 600 volts in dry conditions and should be used in conjunction with other insulating equipment and additional precautions to reduce the risk of a worker becoming a path for hazardous electrical energy. The insulating protection of electrical hazard, safety-toe shoes may be compromised if the shoes become wet, the soles are worn through, metal particles become embedded in the sole or heel, or workers touch conductive, grounded items. Note: Nonconductive footwear must not be used in explosive or hazardous locations.

Foundry Shoes

In addition to insulating the feet from the extreme heat of molten metal, foundry shoes keep hot metal from lodging in shoe eyelets, tongues or other shoe parts. These snug-fitting leather or leather-substitute shoes have leather or rubber soles and rubber heels. All foundry shoes must have built-in safety toes.

Care of Protective Footwear

As with all protective equipment, safety footwear should be inspected prior to each use. Shoes and leggings should be checked for wear and tear at reasonable intervals. This includes looking for cracks or holes, separation of materials, broken buckles or laces. The soles of shoes should be checked for pieces of metal or other embedded items that could present electrical or tripping hazards. Employees should follow the manufacturers' recommendations for cleaning and maintenance of protective footwear.

Hand and Arm Protection

If a workplace hazard assessment reveals that employees face potential injury to hands and arms that cannot be eliminated through engineering and work practice controls, employers must ensure that employees wear appropriate protection. Potential hazards include skin absorption of harmful substances, chemical or thermal burns, electrical dangers, bruises, abrasions, cuts, punctures, fractures and amputations. Protective equipment includes gloves, finger guards and arm coverings or elbow-length gloves.

Employers should explore all possible engineering and work practice controls to eliminate hazards and use PPE to provide additional protection against hazards that cannot be completely eliminated through other means. For example, machine guards may eliminate a hazard. Installing a barrier to prevent workers from placing their hands at the point of contact between a table saw blade and the item being cut is another method.

Types of Protective Gloves

There are many types of gloves available today to protect against a wide variety of hazards. The nature of the hazard and the operation involved will affect the selection of gloves. The variety of potential occupational hand injuries makes selecting the right pair of gloves challenging. It is essential that employees use gloves specifically designed for the hazards and tasks found in their workplace because gloves designed for one function may not protect against a different function even though they may appear to be an appropriate protective device.

The following are examples of some factors that may influence the selection of protective gloves for a workplace.

- Type of chemicals handled.
- Nature of contact (total immersion, splash, etc.).
- Duration of contact.
- Area requiring protection (hand only, forearm, arm).
- Grip requirements (dry, wet, oily).
- Thermal protection.
- Size and comfort.
- Abrasion/resistance requirements.

Gloves made from a wide variety of materials are designed for many types of workplace hazards. In general, gloves fall into four groups:

- Gloves made of leather, canvas or metal mesh;
- Fabric and coated fabric gloves;
- Chemical- and liquid-resistant gloves;
- Insulating rubber gloves (See 29 CFR 1910.137 and the following section on electrical protective equipment for detailed requirements on the selection, use and care of insulating rubber gloves).

Leather, Canvas or Metal Mesh Gloves

Sturdy gloves made from metal mesh, leather or canvas provide protection against cuts and burns. Leather or canvas gloves also protect against sustained heat.

- **Leather gloves** protect against sparks, moderate heat, blows, chips and rough objects.
- **Aluminized gloves** provide reflective and insulating protection against heat and require an insert made of synthetic materials to protect against heat and cold.
- **Aramid fiber gloves** protect against heat and cold, are cut- and abrasive-resistant and wear well.
- **Synthetic gloves** of various materials offer protection against heat and cold, are cut- and abrasive-resistant and may withstand some diluted acids. These materials do not stand up against alkalis and solvents.

Fabric and Coated Fabric Gloves

Fabric and coated fabric gloves are made of cotton or other fabric to provide varying degrees of protection.

- **Fabric gloves** protect against dirt, slivers, chafing and abrasions. They do not provide sufficient protection for use with rough, sharp or heavy materials. Adding a plastic coating will strengthen some fabric gloves.
- **Coated fabric gloves** are normally made from cotton flannel with napping on one side. By coating the unnapped side with plastic, fabric gloves are transformed into general-purpose hand protection offering slip-resistant qualities. These gloves are used for tasks ranging from handling bricks and wire to chemical laboratory containers. When selecting gloves to protect against chemical exposure hazards, always check with the manufacturer or review the manufacturer's product literature to determine the gloves' effectiveness against specific workplace chemicals and conditions.

Chemical- and Liquid-Resistant Gloves

Chemical-resistant gloves are made with different kinds of rubber: natural, butyl, neoprene, nitrile and fluorocarbon (viton); or various kinds of plastic: polyvinyl chloride (PVC), polyvinyl alcohol and polyethylene. These materials can be blended or laminated for

better performance. As a general rule, the thicker the glove material, the greater the chemical resistance but thick gloves may impair grip and dexterity, having a negative impact on safety.

Some examples of chemical-resistant gloves include:

- **Butyl gloves** are made of a synthetic rubber and protect against a wide variety of chemicals, such as peroxide, rocket fuels, highly corrosive acids (nitric acid, sulfuric acid, hydrofluoric acid and red-fuming nitric acid), strong bases, alcohols, aldehydes, ketones, esters and nitrocompounds. Butyl gloves also resist oxidation, ozone corrosion and abrasion, and remain flexible at low temperatures. Butyl rubber does not perform well with aliphatic and aromatic hydrocarbons and halogenated solvents.
- **Natural (latex) rubber gloves** are comfortable to wear, which makes them a popular general-purpose glove. They feature outstanding tensile strength, elasticity and temperature resistance. In addition to resisting abrasions caused by grinding and polishing, these gloves protect workers' hands from most water solutions of acids, alkalis, salts and ketones. Latex gloves have caused allergic reactions in some individuals and may not be appropriate for all employees. Hypoallergenic gloves, glove liners and powderless gloves are possible alternatives for workers who are allergic to latex gloves.
- **Neoprene gloves** are made of synthetic rubber and offer good pliability, finger dexterity, high density and tear resistance. They protect against hydraulic fluids, gasoline, alcohols, organic acids and alkalis. They generally have chemical and wear resistance properties superior to those made of natural rubber.
- **Nitrile gloves** are made of a copolymer and provide protection from chlorinated solvents such as trichloroethylene and perchloroethylene. Although intended for jobs requiring dexterity and sensitivity, nitrile gloves stand up to heavy use even after prolonged exposure to substances that cause other gloves to deteriorate. They offer protection when working with oils, greases, acids, caustics and alcohols but are generally not recommended for use with strong oxidizing agents, aromatic solvents, ketones and acetates.

The following table from the U.S. Department of Energy (Occupational Safety and Health Technical Reference Manual) rates various gloves as being protective against specific chemicals and will help you select the most appropriate gloves to protect your employees. The ratings are abbreviated as follows: VG: Very Good; G: Good; F: Fair; P: Poor (not recommended). Chemicals marked with an asterisk (*) are for limited service.

Table 4
Chemical Resistance Selection Chart for Protective Gloves

Chemical	Neoprene	Latex/Rubber	Butyl	Nitrile
Acetaldehyde*	VG	G	VG	G
Acetic acid	VG	VG	VG	VG
Acetone*	G	VG	VG	P
Ammonium hydroxide	VG	VG	VG	VG
Amy acetate*	F	P	F	P
Aniline	G	F	F	P
Benzaldehyde*	F	F	G	G
Benzene*	P	P	P	F
Butyl acetate	G	F	F	P
Butyl alcohol	VG	VG	VG	VG
Carbon disulfide	F	F	F	F
Carbon tetrachloride*	F	P	P	G
Castor oil	F	P	F	VG
Chlorobenzene*	F	P	F	P
Chloroform*	G	P	P	F
Chloronaphthalene	F	P	F	F
Chromic acid (50%)	F	P	F	F
Citric acid (10%)	VG	VG	VG	VG
Cyclohexanol	G	F	G	VG
Dibutyl phthalate*	G	P	G	G
Diesel fuel	G	P	P	VG
Diisobutyl ketone	P	F	G	P
Dimethylformamide	F	F	G	G
Diocetyl phthalate	G	P	F	VG
Dioxane	VG	G	G	G

Table 4 (continued) Chemical Resistance Selection Chart for Protective Gloves

Epoxy resins, dry	VG	VG	VG	VG
Ethyl acetate*	G	F	G	F
Ethyl alcohol	VG	VG	VG	VG
Ethyl ether*	VG	G	VG	G
Ethylene dichloride*	F	P	F	P
Ethylene glycol	VG	VG	VG	VG
Formaldehyde	VG	VG	VG	VG
Formic acid	VG	VG	VG	VG
Freon 11	G	P	F	G
Freon 12	G	P	F	G
Freon 21	G	P	F	G
Freon 22	G	P	F	G
Furfural*	G	G	G	G
Gasoline, leaded	G	P	F	VG
Gasoline, unleaded	G	P	F	VG
Glycerin	VG	VG	VG	VG
Hexane	F	P	P	G
Hydrazine (65%)	F	G	G	G
Hydrochloric acid	VG	G	G	G
Hydrofluoric acid (48%)	VG	G	G	G
Hydrogen peroxide (30%)	G	G	G	G
Hydroquinone	G	G	G	F
Isooctane	F	P	P	VG
Kerosene	VG	F	F	VG
Ketones	G	VG	VG	P
Lacquer thinners	G	F	F	P
Lactic acid (85%)	VG	VG	VG	VG
Lauric acid (36%)	VG	F	VG	VG
Lineolic acid	VG	P	F	G
Linseed oil	VG	P	F	VG
Maleic acid	VG	VG	VG	VG
Methyl alcohol	VG	VG	VG	VG
Methylamine	F	F	G	G
Methyl bromide	G	F	G	F
Methyl chloride*	P	P	P	P

Table 4 (continued) Chemical Resistance Selection Chart for Protective Gloves

Methyl ethyl ketone*	G	G	VG	P
Methyl isobutyl ketone*	F	F	VG	P
Methyl methacrylate	G	G	VG	F
Monoethanolamine	VG	G	VG	VG
Morpholine	VG	VG	VG	G
Naphthalene	G	F	F	G
Napthas, aliphatic	VG	F	F	VG
Napthas, aromatic	G	P	P	G
Nitric acid*	G	F	F	F
Nitric acid, red and white fuming	P	P	P	P
Nitromethane (95.5%)*	F	P	F	F
Nitropropane (95.5%)	F	P	F	F
Octyl alcohol	VG	VG	VG	VG
Oleic acid	VG	F	G	VG
Oxalic acid	VG	VG	VG	VG
Palmitic acid	VG	VG	VG	VG
Perchloric acid (60%)	VG	F	G	G
Perchloroethylene	F	P	P	G
Petroleum distillates (naphtha)	G	P	P	VG
Phenol	VG	F	G	F
Phosphoric acid	VG	G	VG	VG
Potassium hydroxide	VG	VG	VG	VG
Propyl acetate	G	F	G	F
Propyl alcohol	VG	VG	VG	VG
Propyl alcohol (iso)	VG	VG	VG	VG
Sodium hydroxide	VG	VG	VG	VG
Styrene	P	P	P	F
Styrene (100%)	P	P	P	F
Sulfuric acid	G	G	G	G
Tannic acid (65)	VG	VG	VG	VG
Tetrahydrofuran	P	F	F	F
Toluene*	F	P	P	F
Toluene diisocyanate (TDI)	F	G	G	F

Table 4 (continued) Chemical Resistance Selection Chart for Protective Gloves

Trichloroethylene*	F	F	P	G
Triethanolamine (85%)	VG	G	G	VG
Tung oil	VG	P	F	VG
Turpentine	G	F	F	VG
Xylene*	P	P	P	F

Note: When selecting chemical-resistant gloves be sure to consult the manufacturer's recommendations, especially if the gloved hand(s) will be immersed in the chemical.

Care of Protective Gloves

Protective gloves should be inspected before each use to ensure that they are not torn, punctured or made ineffective in any way. A visual inspection will help detect cuts or tears but a more thorough inspection by filling the gloves with water and tightly rolling the cuff towards the fingers will help reveal any pinhole leaks. Gloves that are discolored or stiff may also indicate deficiencies caused by excessive use or degradation from chemical exposure.

Any gloves with impaired protective ability should be discarded and replaced. Reuse of chemical-resistant gloves should be evaluated carefully, taking into consideration the absorptive qualities of the gloves. A decision to reuse chemically-exposed gloves should take into consideration the toxicity of the chemicals involved and factors such as duration of exposure, storage and temperature.

Body Protection

Employees who face possible bodily injury of any kind that cannot be eliminated through engineering, work practice or administrative controls, must wear appropriate body protection while performing their jobs. In addition to cuts and radiation, the following are examples of workplace hazards that could cause bodily injury:

- Temperature extremes;
- Hot splashes from molten metals and other hot liquids;

- Potential impacts from tools, machinery and materials;
- Hazardous chemicals.

There are many varieties of protective clothing available for specific hazards. Employers are required to ensure that their employees wear personal protective equipment only for the parts of the body exposed to possible injury. Examples of body protection include laboratory coats, coveralls, vests, jackets, aprons, surgical gowns and full body suits.

If a hazard assessment indicates a need for full body protection against toxic substances or harmful physical agents, the clothing should be carefully inspected before each use, it must fit each worker properly and it must function properly and for the purpose for which it is intended.

Protective clothing comes in a variety of materials, each effective against particular hazards, such as:

- **Paper-like fiber** used for disposable suits provide protection against dust and splashes.
- **Treated wool and cotton** adapts well to changing temperatures, is comfortable, and fire-resistant and protects against dust, abrasions and rough and irritating surfaces.
- **Duck** is a closely woven cotton fabric that protects against cuts and bruises when handling heavy, sharp or rough materials.
- **Leather** is often used to protect against dry heat and flames.
- **Rubber, rubberized fabrics, neoprene and plastics** protect against certain chemicals and physical hazards. When chemical or physical hazards are present, check with the clothing manufacturer to ensure that the material selected will provide protection against the specific hazard.

Hearing Protection

Determining the need to provide hearing protection for employees can be challenging. Employee exposure to excessive noise depends upon a number of factors, including:

- The loudness of the noise as measured in decibels (dB).
- The duration of each employee's exposure to the noise.
- Whether employees move between work areas with different noise levels.

- Whether noise is generated from one or multiple sources.

Generally, the louder the noise, the shorter the exposure time before hearing protection is required. For instance, employees may be exposed to a noise level of 90 dB for 8 hours per day (unless they experience a Standard Threshold Shift) before hearing protection is required. On the other hand, if the noise level reaches 115 dB hearing protection is required if the anticipated exposure exceeds 15 minutes.

For a more detailed discussion of the requirements for a comprehensive hearing conservation program, see OSHA Publication 3074 (2002), “Hearing Conservation” or refer to the OSHA standard at 29 CFR 1910.95, Occupational Noise Exposure, section (c).

Table 5, below, shows the permissible noise exposures that require hearing protection for employees exposed to occupational noise at specific decibel levels for specific time periods. Noises are considered continuous if the interval between occurrences of the maximum noise level is one second or less. Noises not meeting this definition are considered impact or impulse noises (loud momentary explosions of sound) and exposures to this type of noise must not exceed 140 dB. Examples of situations or tools that may result in impact or impulse noises are powder-actuated nail guns, a punch press or drop hammers.

Table 5
Permissible Noise Exposures

Duration per day, in hours	Sound level in dB*
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

*When measured on the A scale of a standard sound level meter at slow response.

Source: 29 CFR 1910.95, Table G-16.

If engineering and work practice controls do not lower employee exposure to workplace noise to acceptable levels, employees must wear appropriate hearing protection. It is important to understand that hearing protectors reduce only the amount of noise that gets through to the ears. The amount of this reduction is referred to as attenuation, which differs according to the type of hearing protection used and how well it fits. Hearing protectors worn by employees must reduce an employee's noise exposure to within the acceptable limits noted in Table 5. Refer to Appendix B of 29 CFR 1910.95, Occupational Noise Exposure, for detailed information on methods to estimate the attenuation effectiveness of hearing protectors based on the device's noise reduction rating (NRR). Manufacturers of hearing protection devices must display the device's NRR on the product packaging. If employees are exposed to occupational noise at or above 85 dB averaged over an eight-hour period, the employer is required to institute a hearing conservation program that includes regular testing of employees' hearing by qualified professionals. Refer to 29 CFR 1910.95(c) for a description of the requirements for a hearing conservation program.

Some types of hearing protection include:

- **Single-use earplugs** are made of waxed cotton, foam, silicone rubber or fiberglass wool. They are self-forming and, when properly inserted, they work as well as most molded earplugs.
- **Pre-formed or molded earplugs** must be individually fitted by a professional and can be disposable or reusable. Reusable plugs should be cleaned after each use.
- **Earmuffs** require a perfect seal around the ear. Glasses, facial hair, long hair or facial movements such as chewing may reduce the protective value of earmuffs.

OSHA Assistance

OSHA can provide extensive help through a variety of programs, including technical assistance about effective safety and health programs, state plans, workplace consultations, voluntary protection programs, strategic partnerships, training and education, and more. An overall commitment to workplace safety and health can add value to your business, to your workplace and to your life.

Safety and Health Program Management Guidelines

Effective management of worker safety and health protection is a decisive factor in reducing the extent and severity of work-related injuries and illnesses and their related costs. In fact, an effective safety and health program forms the basis of good worker protection and can save time and money (about \$4 for every dollar spent) and increase productivity and reduce worker injuries, illnesses and related workers' compensation costs.

To assist employers and employees in developing effective safety and health programs, OSHA published recommended Safety and Health Program Management Guidelines (Federal Register 54 (16): 3904-3916, January 26, 1989). These voluntary guidelines apply to all places of employment covered by OSHA.

The guidelines identify four general elements critical to the development of a successful safety and health management program:

- Management leadership and employee involvement.
- Work analysis.
- Hazard prevention and control.
- Safety and health training.

The guidelines recommend specific actions, under each of these general elements, to achieve an effective safety and health program. The Federal Register notice is available online at www.osha.gov.

State Programs

The Occupational Safety and Health Act of 1970 (OSH Act) encourages states to develop and operate their own job safety and health plans. OSHA approves and monitors these plans. There are currently 26 state plans: 23 cover both private and public (state and local government) employment; 3 states, Connecticut, New Jersey and New York, cover the public sector only. States and territories with their own OSHA-approved occupational safety and health plans must adopt standards identical to, or at least as effective as, the federal standards.

Consultation Services

Consultation assistance is available on request to employers who want help in establishing and maintaining a safe and healthful workplace. Largely funded by OSHA, the service is provided at no cost to the employer. Primarily developed for smaller employers with more hazardous operations, the consultation service is delivered by state governments employing professional safety and health consultants. Comprehensive assistance includes an appraisal of all-mechanical systems, work practices and occupational safety and health hazards of the workplace and all aspects of the employer's present job safety and health program. In addition, the service offers assistance to employers in developing and implementing an effective safety and health program. No penalties are proposed or citations issued for hazards identified by the consultant. OSHA provides consultation assistance to the employer with the assurance that his or her name and firm and any information about the workplace will not be routinely reported to OSHA enforcement staff.

Under the consultation program, certain exemplary employers may request participation in OSHA's Safety and Health Achievement Recognition Program (SHARP). Eligibility for participation in SHARP includes receiving a comprehensive consultation visit, demonstrating exemplary achievements in workplace safety and health by abating all identified hazards and developing an excellent safety and health program.

Employers accepted into SHARP may receive an exemption from programmed inspections (not complaint or accident investigation inspections) for a period of one year. For more information concerning consultation assistance, see the OSHA website at www.osha.gov.

Voluntary Protection Programs (VPP)

Voluntary Protection Programs and onsite consultation services, when coupled with an effective enforcement program, expand worker protection to help meet the goals of the OSH Act. The three levels of VPP are Star, Merit, and Demonstration designed to recognize outstanding achievements by companies that have successfully incorporated comprehensive safety and health programs into their total management system. The VPPs motivate others to achieve excellent safety and health results in the same outstanding

way as they establish a cooperative relationship between employers, employees and OSHA.

For additional information on VPP and how to apply, contact the OSHA regional offices listed at the end of this publication.

Strategic Partnership Program

OSHA's Strategic Partnership Program, the newest member of OSHA's cooperative programs, helps encourage, assist and recognize the efforts of partners to eliminate serious workplace hazards and achieve a high level of worker safety and health. Whereas OSHA's Consultation Program and VPP entail one-on-one relationships between OSHA and individual worksites, most strategic partnerships seek to have a broader impact by building cooperative relationships with groups of employers and employees. These partnerships are voluntary, cooperative relationships between OSHA, employers, employee representatives and others (e.g., trade unions, trade and professional associations, universities and other government agencies).

For more information on this and other cooperative programs, contact your nearest OSHA office, or visit OSHA's website at www.osha.gov.

Alliance Programs

The Alliance Program enables organizations committed to workplace safety and health to collaborate with OSHA to prevent injuries and illnesses in the workplace. OSHA and the Alliance participants work together to reach out to, educate and lead the nation's employers and their employees in improving and advancing workplace safety and health.

Alliances are open to all groups, including trade or professional organizations, businesses, labor organizations, educational institutions and government agencies. In some cases, organizations may be building on existing relationships with OSHA that were developed through other cooperative programs.

There are few formal program requirements for Alliances and the agreements do not include an enforcement component. However, OSHA and the participating organizations must define, implement and meet a set of short- and long-term goals that fall into three categories: training and education; outreach and commu-

nication; and promoting the national dialogue on workplace safety and health.

OSHA Training and Education

OSHA area offices offer a variety of information services, such as compliance assistance, technical advice, publications, audiovisual aids and speakers for special engagements. OSHA's Training Institute in Arlington Heights, Ill., provides basic and advanced courses in safety and health for federal and state compliance officers, state consultants, federal agency personnel, and private sector employers, employees and their representatives.

The OSHA Training Institute also has established OSHA Training Institute Education Centers to address the increased demand for its courses from the private sector and from other federal agencies. These centers are nonprofit colleges, universities and other organizations that have been selected after a competition for participation in the program.

OSHA also provides funds to nonprofit organizations, through grants, to conduct workplace training and education in subjects where OSHA believes there is a lack of workplace training. Grants are awarded annually. Grant recipients are expected to contribute 20 percent of the total grant cost.

For more information on grants, training and education, contact the OSHA Training Institute, Office of Training and Education, 2020 South Arlington Heights Road, Arlington Heights, IL 60005, (847) 297-4810 or see "Outreach" on OSHA's website at www.osha.gov. For further information on any OSHA program, contact your nearest OSHA area or regional office listed at the end of this publication.

Information Available Electronically

OSHA has a variety of materials and tools available on its website at www.osha.gov. These include e-Tools such as Expert Advisors, Electronic Compliance Assistance Tools (e-cats), Technical Links; regulations, directives and publications, videos and other information for employers and employees. OSHA's software programs and compliance assistance tools walk you through challenging safety and health issues and common problems to find the best solutions for your workplace.

OSHA's CD-ROM includes standards, interpretations, directives and more, and can be purchased on CD-ROM from the U.S. Government Printing Office. To order, write to the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 or phone (202) 512-1800, or order online at <http://bookstore.gpo.gov>.

OSHA Publications

OSHA has an extensive publications program. For a listing of free or sales items, visit OSHA's website at www.osha.gov or contact the OSHA Publications Office, U.S. Department of Labor, 200 Constitution Avenue, NW, N-3101, Washington, DC 20210. Telephone (202) 693-1888 or fax to (202) 693-2498.

Contacting OSHA

To report an emergency, file a complaint or seek OSHA advice, assistance or products, call (800) 321-OSHA or contact your nearest OSHA regional or area office listed at the end of this publication. The teletypewriter (TTY) number is (877) 889-5627.

You can also file a complaint online and obtain more information on OSHA federal and state programs by visiting OSHA's website at www.osha.gov.

OSHA Regional Offices

Region I

(CT,* ME, MA, NH, RI, VT*)
JFK Federal Building, Room E340
Boston, MA 02203
(617) 565-9860

Region II

(NJ,* NY,* PR,* VI*)
201 Varick Street, Room 670
New York, NY 10014
(212) 337-2378

Region III

(DE, DC, MD,* PA,* VA,* WV)
The Curtis Center
170 S. Independence Mall West
Suite 740 West
Philadelphia, PA 19106-3309
(215) 861-4900

Region IV

(AL, FL, GA, KY,* MS, NC,* SC,* TN*)
61 Forsyth Street, SW
Atlanta, GA 30303
(404) 562-2300

Region V

(IL, IN,* MI,* MN,* OH, WI)
230 South Dearborn Street, Room 3244
Chicago, IL 60604
(312) 353-2220

Region VI

(AR, LA, NM,* OK, TX)
525 Griffin Street, Room 602
Dallas, TX 75202
(214) 767-4731 or 4736 x224

Region VII

(IA,* KS, MO, NE)
City Center Square
1100 Main Street, Suite 800
Kansas City, MO 64105
(816) 426-5861

Region VIII

(CO, MT, ND, SD, UT,* WY*)
1999 Broadway, Suite 1690
PO Box 46550
Denver, CO 80201-6550
(303) 844-1600

Region IX

(American Samoa, AZ,* CA,* HI, NV,* Northern Mariana Islands)
71 Stevenson Street, Room 420
San Francisco, CA 94105
(415) 975-4310

Region X

(AK,* ID, OR,* WA*)
1111 Third Avenue, Suite 715
Seattle, WA 98101-3212
(206) 553-5930

*These states and territories operate their own OSHA-approved job safety and health programs (Connecticut, New Jersey and New York plans cover public employees only). States with approved programs must have a standard that is identical to, or at least as effective as, the federal standard.

Note: To get contact information for OSHA Area Offices, OSHA-approved State Plans and OSHA Consultation Projects, please visit us online at www.osha.gov or call us at 1-800-321-OSHA.

Appendix A

OSHA Standards that Require PPE

29 CFR 1910, General Industry

Standards that Require the Employer to Provide PPE:

1910.28	Safety requirements for scaffolds
1910.66	Powered platforms for building maintenance
1910.67	Vehicle-mounted elevating and rotating work platforms
1910.94	Ventilation
1910.119	Process safety management of highly hazardous chemicals
1910.120	Hazardous waste operations and emergency response
1910.132	General requirements (personal protective equipment)
1910.133	Eye and face protection
1910.135	Occupational foot protection
1910.136	Occupational foot protection
1910.137	Electrical protective devices
1910.138	Hand protection
1910.139	Respiratory protection for M. tuberculosis
1910.157	Portable fire extinguishers
1910.160	Fixed extinguishing systems, general
1910.183	Helicopters
1910.218	Forging machines
1910.242	Hand and portable powered tools and equipment, general
1910.243	Guarding of portable power tools
1910.252	General requirements (welding, cutting and brazing)
1910.261	Pulp, paper, and paperboard mills
1910.262	Textiles
1910.268	Telecommunications
1910.269	Electric power generation, transmission and distribution
1910.333	Selection and use of work practices
1910.335	Safeguards for personnel protection
1910.1000	Air contaminants
1910.1003	13 carcinogens, etc.
1910.1017	Vinyl chloride
1910.1029	Coke oven emissions
1910.1043	Cotton dust
1910.1096	Ionizing radiation

***Standards that Require the Employer to Provide PPE
at No Cost to the Employee:***

- 1910.95 Occupational noise exposure
- 1910.134 Respiratory protection
- 1910.146 Permit-required confined spaces
- 1910.156 Fire brigades
- 1910.266 Logging operations
- 1910.1001 Asbestos
- 1910.1018 Inorganic Arsenic
- 1910.1025 Lead
- 1910.1027 Cadmium
- 1910.1028 Benzene
- 1910.1030 Bloodborne pathogens
- 1910.1044 1,2-dibromo-3-chloropropane
- 1910.1045 Acrylonitrile
- 1910.1047 Ethylene oxide
- 1910.1048 Formaldehyde
- 1910.1050 Methylenedianiline
- 1910.1051 1,3-Butadiene
- 1910.1052 Methylene chloride
- 1910.1450 Occupational exposure to chemicals in laboratories

29 CFR 1915, Shipyard Employment

Standards that Require the Employer to Provide PPE:

- 1915.12 Precautions and the order of testing before entering confined and enclosed spaces and other dangerous atmospheres
- 1915.13 Cleaning and other cold work
- 1915.32 Toxic cleaning solvents
- 1915.34 Mechanical paint removers
- 1915.35 Painting
- 1915.51 Ventilation and protection in welding, cutting and heating
- 1915.73 Guarding of deck openings and edges
- 1915.77 Working surfaces
- 1915.135 Powder actuated fastening tools
- 1915.156 Foot protection
- 1915.157 Hand and body protection
- 1915.158 Lifesaving equipment
- 1915.159 Personal fall arrest systems (PFAS)

***Standards that Require the Employer to Provide PPE
at No Cost to the Employee:***

- 1915.154 Respiratory Protection
- 1915.1001 Asbestos

29 CFR 1917, Marine Terminals

Standards that Require the Employer to Provide PPE:

- 1917.22 Hazardous cargo
- 1917.25 Fumigants, pesticides, insecticides and hazardous waste
- 1917.26 First aid and lifesaving facilities
- 1917.91 Eye and face protection
- 1917.93 Head protection
- 1917.95 Other protective measures
- 1917.126 River banks
- 1917.152 Welding, cutting and heating (hot work)
- 1917.154 Compressed air

***Standards that Require the Employer to Provide PPE
at No Cost to the Employee:***

- 1917.92 Respiratory protection

29 CFR 1918, Longshoring

Standards that Require the Employer to Provide PPE:

- 1918.85 Containerized cargo operations
- 1918.88 Log operations
- 1918.93 Hazardous atmospheres and substances
- 1918.94 Ventilation and atmospheric conditions
- 1918.104 Foot protection
- 1918.105 Other protective measures

***Standards that Require the Employer to Provide PPE
at No Cost to the Employee:***

- 1918.102 Respiratory protection

29 CFR 1926, Construction

Standards that Require the Employer to Provide PPE:

- 1926.28 Personal protective equipment
- 1926.52 Occupational noise exposure

1926.57	Ventilation
1926.64	Process safety management of highly hazardous chemicals
1926.65	Hazardous waste operations and emergency response
1926.95	Criteria for personal protective equipment
1926.96	Occupational foot protection
1926.100	Head protection
1926.101	Hearing protection
1926.102	Eye and face protection
1926.104	Safety belts, lifelines and lanyards
1926.105	Safety nets
1926.106	Working over or near water
1926.250	General requirements for storage
1926.300	General requirements (Hand and power tools)
1926.302	Power-operated hand tools
1926.304	Woodworking tools
1926.353	Ventilation and protection in welding, cutting and heating
1926.354	Welding, cutting and heating in way of preservative coatings
1926.416	General requirements (Electrical)
1926.451	General requirements (Scaffolds)
1926.453	Aerial lifts
1926.501	Duty to have fall protection
1926.502	Fall protection systems criteria and practices
1926.550	Cranes and derricks
1926.551	Helicopters
1926.701	General requirements (Concrete and masonry construction)
1926.760	Fall protection (Steel erection)
1926.800	Underground construction
1926.951	Tools and protective equipment
1926.955	Overhead lines
1926.1101	Asbestos

Standards that Require the Employer to Provide PPE at No Cost to the Employee:

1926.60	Methylenedianiline
1926.62	Lead
1926.103	Respiratory protection
1926.1127	Cadmium



**Occupational Safety
and Health Administration**

U.S. Department of Labor

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EYE AND FACE PROTECTION

SELECTION TOOL



INTERNATIONAL
SAFETY EQUIPMENT
ASSOCIATION



Annex J. Eye and Face Selection Guide (informative)

ANSI/ISEA Z87.1-2015

Eye and Face Protector Selection Guide

This guide is not intended to be the sole reference in selecting the proper eye and face protector. A copy of this selection guide is also available for download from ISEA's website, www.safetyequipment.org.

This information is intended to aid in identifying and selecting the types of eye and face protectors that are available, their capabilities and limitations for the hazards listed. Care should be taken to recognize the possibility of multiple and simultaneous hazard exposures and the chosen protector(s) should be able to protect against the highest level of each hazard. Some protectors may not be compatible with other personal protective equipment when worn together. The end user needs to carefully match protectors with other personal protective equipment to provide the protection intended. Protectors are generally available in a variety of styles and sizes and care should be taken to ensure that the right size is selected for a particular person ensuring comfort and proper fit. Protectors that fit poorly will not afford the protection for which they were designed.

Hazard	Protectors	Limitations	Marking ¹
IMPACT - Chipping, grinding, machining, masonry work, riveting, and sanding			
Flying fragments, objects, large chips, particles, sand, dirt, etc.	<ul style="list-style-type: none"> • Spectacles with side protection • Goggles with direct or indirect ventilation • Faceshield worn over spectacles or goggles • Welding helmet worn over spectacles or goggles • Loose-fitting respirator worn over spectacles or goggles • Full-facepiece respirators 	<p>Caution should be exercised in the use of metal frame protective devices in electrical hazard areas. Metal frame protective devices could potentially cause electrical shock and electrical burn through contact with, or thermal burns from exposure to the hazards of electrical energy, which include radiation from accidental arcs.</p> <p>To provide adequate protection, ensure goggles fit tightly to the face.</p> <p>Atmospheric conditions and the restricted ventilation of a protector can cause lenses to fog. Frequent cleaning may be required.</p>	Impact rated: + (spectacle lens) Z87+ (all other lens) Z87+ (plano frame) Z87-2+ (Rx frame)
HEAT - Furnace operations - pouring, casting, hot dipping, gas cutting, and welding			
Hot sparks	<ul style="list-style-type: none"> • Spectacles with side protection • Goggles with direct or indirect ventilation • Faceshield worn over spectacles or goggles • Loose-fitting respirator worn over spectacles • Full-facepiece respirator 	<p>Spectacles, cup and cover type goggles do not provide unlimited facial protection.</p> <p>Operations involving heat may also involve optical radiation. Protection from both hazards shall be provided.</p>	NOTE: There are currently no marking designations for eye protection to heat or high-temperature exposure in the ANSI/ISEA Z87.1-2015 standard.
Splash from molten metal	<ul style="list-style-type: none"> • Faceshield worn over goggles • Loose-fitting respirator worn over spectacles or goggles • Full-facepiece respirator 		

Hazard	Protectors	Limitations	Marking ¹
High temperature exposure	<ul style="list-style-type: none"> • Screen faceshield over spectacles or goggles • Reflective faceshield over spectacles or goggles 		
CHEMICAL – Liquids, acid and chemical handling, degreasing, plating.			
Splash, droplets and sprays	<ul style="list-style-type: none"> • Goggles with indirect ventilation (eyecup or cover type) • Faceshield worn over goggles • Loose-fitting respirator worn over spectacles or goggles • Full-facepiece respirator 	<p>Atmospheric conditions and the restricted ventilation of a protector can cause lenses to fog. Frequent cleaning may be required.</p> <p>To provide adequate protection, ensure goggles fit tightly to the face.</p>	Splash/droplet: D3
Irritating Mist	<ul style="list-style-type: none"> • Goggle with no ventilation (cover type) • Faceshield worn over goggles • Loose-fitting respirator worn over spectacles or goggles • Full-facepiece respirator 	<p>Atmospheric conditions and the restricted ventilation of a protector can cause lenses to fog. Frequent cleaning may be required.</p> <p>To provide adequate protection, ensure goggles fit tightly to the face.</p>	NOTE: There are currently no marking designations for eye protection to Irritating mists exposure in the ANSI/ISEA Z87.1-2015 standard.
DUST - Woodworking, buffing, general dusty conditions			
Nuisance dust	<ul style="list-style-type: none"> • Goggles with direct or indirect ventilation (eyecup or cover type) • Full-facepiece respirator 	<p>Atmospheric conditions and the restricted ventilation of a protector can cause lenses to fog. Frequent cleaning may be required.</p> <p>To provide adequate protection, ensure goggles fit tightly to the face.</p>	Dust: D4
Fine dust	<ul style="list-style-type: none"> • Goggles with indirect ventilation or no ventilation • Full-facepiece respirator 	To provide adequate protection, ensure goggles fit tightly to the face.	Fine dust: D5
OPTICAL RADIATION			
Infrared Radiation (IR)	<ul style="list-style-type: none"> • Spectacles with side protection • Goggles with direct or indirect ventilation • Faceshield worn over spectacles or goggles • Welding helmet worn over spectacles or goggles • Loose-fitting respirator worn over spectacles or goggles • Full-facepiece respirators 	<p>For proper fit of protector; there shall be no penetration of direct infrared spectra light in all non-lens areas.</p> <p>Side shields shall have filtering capability equal to or greater than the front lenses.</p>	IR: R and scale number

Hazard	Protectors	Limitations	Marking ¹
Visible Light (Glare)	<ul style="list-style-type: none"> • Spectacles with side protection • Goggles with direct or indirect ventilation • Faceshield worn over spectacles or goggles • Welding helmet worn over spectacles or goggles • Loose-fitting respirator worn over spectacles or goggles • Full-facepiece respirators 	<p>For proper fit of protector; there shall be no penetration of direct visible light in all non-lens areas.</p> <p>Side shields shall have filtering capability equal to or greater than the front lenses.</p>	Visible: L and <i>scale number</i>
Ultraviolet Radiation (UV)	<ul style="list-style-type: none"> • Spectacles with side protection • Goggles with direct or indirect ventilation • Faceshield worn over spectacles or goggles • Welding helmet worn over spectacles or goggles • Loose-fitting respirator worn over spectacles or goggles • Full-facepiece respirators 	<p>For proper fit of protector; there shall be no penetration of direct ultraviolet light in all non-lens areas</p> <p>Side shields shall have filtering capability equal to or greater than the front lenses.</p>	UV: U and scale number
Lasers	Refer to ANSI Z136.1-2014 "Safe Use of Lasers", for guidance in choosing the correct protective eyewear when working with lasers.		NOTE: There are currently no marking designations for eye protection to Lasers in the ANSI/ISEA Z87.1-2015 standard.

Hazard	Protectors	Limitations	Marking ¹
<p>Arc Welding: Arc</p> <p>Process Examples: Shielded Metal Arc Welding (SMAW)</p> <p>Gas Metal Arc Welding (GMAW)</p> <p>Gas Tungsten Arc Welding (GTAW)</p> <p>Air Carbon Arc Welding (CAC-A)</p> <p>Carbon Arc Welding (CAW)</p> <p>Plasma Arc Welding (PAW)</p> <p>Plasma Arc Cutting (PAC)</p> <p>Viewing electric arc furnaces and boilers.</p>	<ul style="list-style-type: none"> • Welding helmet over spectacles or goggles • Handshield over spectacles or goggles • Welding Respirator • TYPICAL FILTER LENS SHADE: 10-14 	<p>Protection from optical radiation is directly related to filter lens density. Select the darkest shade that allows adequate task performance.</p> <p>For proper fit of protector; there shall be no penetration of direct visible light in all non-lens areas.</p> <p>Side shields shall have filtering capability equal to or greater than the front lenses. Welding helmets are intended to shield the eyes and face from optical radiation, heat, and impact. Welding helmets should not be used as a stand-alone protective devices and should be worn in conjunction with goggles or spectacles.</p> <p>Filter lens shade selection is to be made based on the welding process, arc current, electrode size and/or plate thickness. Use ANSI Z49.1:2012, Table 1, Guide for Shade Numbers, to select the proper filter lens shade for both protection and comfort (reduction in visible glare).</p> <p>Note: Filter lenses shall meet the requirements for shade designations in table 6 of ANSI/ISEA Z87.1-2015.</p>	<p>Welding: W shade number</p> <p>UV: U scale number</p> <p>Visible: L scale number</p> <p>IR: R scale number</p> <p>Variable tint: V</p> <p>Special purpose: S</p>

Hazard	Protectors	Limitations	Marking ¹
<p>Oxyfuel Gas Welding:</p> <p>Process Examples: Oxyfuel Gas Welding (OFW)</p> <p>Viewing gas-fired furnaces and boilers</p>	<ul style="list-style-type: none"> • Welding goggles • Welding helmet over spectacles or goggles • Welding faceshield over spectacles or goggles <p>TYPICAL FILTER LENS SHADE: 6 -8</p>	<p>Protection from optical radiation is directly related to filter lens density. Select the darkest shade that allows adequate task performance.</p> <p>For proper fit of protector; there shall be no penetration of direct visible light in all non-lens areas.</p> <p>Side shields shall have filtering capability equal to or greater than the front lenses.</p> <p>Welding helmets are intended to shield the eyes and face from optical radiation, heat, and impact. Welding helmets should not be used as a stand-alone protective devices and should be worn in conjunction with goggles or spectacles</p> <p>Filter lens shade selection is to be made based on the welding process, arc current, electrode size and/or plate thickness. Use ANSI Z49.1:2012, Table 1, Guide for Shade Numbers, to select the proper filter lens shade for both protection and comfort (reduction in visible glare).</p>	<p>Welding: W shade number UV: U scale number Visible: L scale number IR: R scale number Variable tint: V Special purpose: S</p>
<p>Oxyfuel or Oxygen Cutting</p>	<ul style="list-style-type: none"> • Welding goggles • Welding helmet over spectacles or goggles • Welding faceshield over spectacles or goggles <p>TYPICAL FILTER LENS SHADE:3-6</p>	<p>Note: Filter lenses shall meet the requirements for shade designations in table 6 of ANSI/ISEA Z87.1-2015.</p>	
<p>Torch brazing</p>	<ul style="list-style-type: none"> • Welding goggles • Welding helmet over spectacles or goggles • Welding faceshield over spectacles or goggles <p>TYPICAL FILTER LENS SHADE: 3-4</p>		
<p>Torch soldering</p>	<ul style="list-style-type: none"> • Spectacles • Welding faceshield over spectacles <p>TYPICAL FILTER LENS SHADE: 2</p>	<p>Shade or special purpose lenses, as suitable.</p> <p>Note: Refer to definition of special purpose lenses in ANSI/ISEA Z87.1-2015.</p>	
<p>Glare</p>	<ul style="list-style-type: none"> • Spectacles with or without side protection • Faceshield over spectacles or goggles. 		

1. Refer to ANSI/ISEA Z87.1-2015 Table 3 for complete marking requirements.

2. Refer to ANSI Z49.1: 2012: "Safety in Welding, Cutting, and Allied Processes", Table 1, Guide for Shade Numbers, to select the proper lens filter protective shade based on welding process, arc current (in amperes), Electrode Size (arc welding only) and metal plate thickness (for oxyfuel and oxygen cutting only).

3. Refer to ANSI Z136.1-2014 "Safe Use of Lasers", for guidance on choosing the correct protective eyewear when working with lasers.

ANSI/ISEA Z89.1-2014 Revision

American National Standard for Industrial Protection ANSI/ISEA Z89.1-2014

This is the seventh revision of the standard that provides performance and testing requirements for industrial helmets, commonly known as hard hats. The American National Standards Institute (ANSI) and the Industrial Safety Equipment Association (ISEA) worked together on this 2014 standard. It is a revision of ANSI/ISEA Z89.1, which continues to include specifications for helmets designed to offer protection from lateral impact, or top-only impact, giving employers and users the flexibility to specify the helmet that best meets the needs of their specific workplace.

Industrial head protective helmets meeting the requirements of the 2014 standard are classified as Type I for top protection or Type II for lateral impact protection. Both types are tested for impact attenuation and penetration resistance. Type II helmet performance requirements include criteria for impact energy attenuation from impacts from the front, back and sides, as well as the top, off-center penetration resistance and chin strap retention.

The three classes indicate the helmet's electrical insulation rating, unchanged from 2009:

Class E (electrical) are tested to withstand 20,000 volts;
Class G (general) helmets are tested at 2,200 volts; and
Class C (conductive) provide no electrical protection.

Changes 2009 to 2014

NOTE: There were three main changes from 2009 to the ANSI/ISEA Z89.1-2014 standard:

- Under the section of Accessories and Replacement Components there is further clarification that accessory or component manufacturers are required to prove that their components do not cause the helmets to fail. Helmet accessory or component suppliers must provide justification upon request that their product would not cause the helmet to fail the requirements of the Head Protection Standard.
- Some additional language added under the Instructions and Markings section to help clarify that "useful service life" for helmets is not required by the Standard. It is up to helmet manufacturers if they want to include specific service life in terms of years. Manufacturers could elect to specify the number of years for their helmet's service life or elect to identify certain conditions that may affect a helmet's protection capability over time.
- The last section revised was the Higher Temperature section for users who work in hot environments. This section was updated to incorporate an optional preconditioning at a higher temperature of 140° F +- 3.6° F (60° C +- 2° C). Previously hot temperature preconditioning was conducted at 120° F +- 3.6° F (48.8° C +- 2° C) under the 2009 Standard. Helmets that meet the performance criteria after being preconditioned to these higher temperatures (140° F) will be designated with a HT marking.

Markings

According to the ANSI/ISEA standard, hard hats must also contain user information such as instructions pertaining to sizing, care and service life guidelines. Every hard hat conforming to the requirements of ANSI Z89.1-2014 must be appropriately marked to verify its compliance. The following information must be marked inside the hard hat:

- The manufacturer's name or identifying mark
- Date of Manufacture
- The legend, "ANSI Z89.1-2014"
- The Type and Class Designation
- The approximate head size range

If optional performance features are applicable, the appropriate marking(s) below must be applied in the sequence as shown:

-  - Reverse Donning
- LT - Lower Temperature
- HV - High Visibility
- HT - Higher Temperature



Changes 2003 to 2009

NOTE: Changes in this revision of the standard include 3 new optional criteria:

Reverse Wearing: Helmets marked with  can be worn facing frontwards or backwards in accordance with the manufacturer's wearing instructions. They pass all testing requirements, whether worn frontwards or backwards. All Bullard Type I industrial hard hats can be worn backwards, per instructions included with the hard hat. Bullard Type II hard hats (Advent, Vector) can not.

Extreme Cold: A helmet with the optional mark "LT" indicates that the hard hat meets all testing requirements of the standard when preconditioned at a temperature of -30°C (-22°F), instead of the normal cold preconditioning done at -18°C (0°F). All Bullard industrial hard hats have been tested and are certified at this new lower temperature, and are marked "LT" on the label.

High Visibility: A helmet with the optional mark "HV" meets new requirements in the standard for high visibility colors. (Currently, Bullard's "hi-viz" yellow meets the chromaticity and luminance requirements and can be labeled "HV".)

The following Bullard hard hats/helmets meet the revised ANSI/ISEA Z89.1-2014 standard:

Model	Standard Type and Class
C30	ANSI/ISEA Z89.1-2014, Type I, Class E & G
C33	ANSI/ISEA Z89.1-2014, Type I, Class E & G
C34	ANSI/ISEA Z89.1-2014, Type I, Class E & G
S51	ANSI/ISEA Z89.1-2014, Type I, Class E & G
S61	ANSI/ISEA Z89.1-2014, Type I, Class E & G
S62	ANSI/ISEA Z89.1-2014, Type I, Class C
S71	ANSI/ISEA Z89.1-2014, Type I, Class E & G
911C	ANSI/ISEA Z89.1-2014, Type I, Class E & G
911H	ANSI/ISEA Z89.1-2014, Type I, Class E & G
Advent	ANSI/ISEA Z89.1-2014, Type II, Class E & G
Vector	ANSI/ISEA Z89.1-2014, Type II, Class E & G

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8263 (0915)

Job Safety Analysis (JSA) Plan

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 - ATTACHMENT 2** ▪ Hazard Assessment Checklist
 - ATTACHMENT 3** ▪ JSA Blank FORM / *SAMPLE FORM
 - ATTACHMENT 4** ▪ Near Miss Reporting FORM
 - ATTACHMENT 5** ▪ Cal/OSHA Job Hazard Analysis Guide

Job Safety Analysis (JSA) Plan

1.0 PURPOSE

To establish guidance in the development, implementation, and utilization of a Job Safety Analysis (JSA) Plan for all company locations and jobsites. To maintain a safe and healthful workplace free from recognized hazards that may cause harm to employees by integrating accepted health and safety practices into a particular task or job operation.

2.0 SCOPE

A **Job Safety Analysis** is a technique that focuses on specific job tasks as a way to identify potential hazards before they occur. It focuses on the relationship between the worker, the task, the tools, and the work environment.

2.1 To provide guidance for performing safety evaluations of tasks and procedures performed by employees.

2.2 To identify hazards and recommend remedies related to those evaluations.

3.0 RESPONSIBILITIES

3.1 Management

- A. To be responsible for ensuring the development and implementation of this policy.
- B. To provide available resources as needed to carry out the program.

3.2 Supervisor

- A. To request support, as needed from the **Safety Representative** to do a workplace assessment.
- B. To meet with the **Safety Representative** for revisions as needed and scheduling workplace assessments.
- C. To review the completed JSA with the **Safety Representative** for thoroughness and accuracy while developing a plan for completion of corrective actions recommended to resolve safety concerns.

3.3 Employee

- A. To be familiar with the contents of the JSA policy & procedures
- B. To report any unsafe work practices or unsafe conditions that are observed to his/her supervisor.
- C. To participate in JSA development and provide information as requested.

3.4 Safety Representative

- A. To ensure the development, implementation and maintenance of the JSA policy and related procedures, including analysis and corrective action implementation.
- B. To evaluate and prioritize the need/applicability of a JSA.
- C. To develop a JSA by defining the key steps of each job, identifying the potential hazards of each key step and recommending safe work practices (i.e., engineering controls, work practice controls, proposed correction action, PPE, and etc.) to eliminate or reduce each hazard.
- D. To recommend any changes that facilitate personnel safety to include but not limited to, Specific procedures, policies, equipment, training, etc. that maybe involved.
- E. To communicate to Management and all affected employees on the implementation of all JSAs.

Job Safety Analysis (JSA) Plan

- F. To establish a documented annual plan describing the priority and schedule of JSA to be conducted for potential safety improvements as time and resources allow. Also to perform JSA following total recordable cases, near misses, injuries, etc. that may be unscheduled.

4.0 HAZARD ASSESSMENT

To conduct the hazard assessment, the method used must adequately address the hazards identified, and include one, or a combination of the following, depending on the type of operation, equipment, chemical or other item or task involved:

4.1 *Visual Inspection* of the item and its associated environment

- This should include assessing how the shop/unit, equipment, chemical or other item impacts the health and safety of the area around it, and vice versa.

4.2 *Auditing*

- This involves the systematic examination of the safety management and technical systems relating to the shop, equipment, chemical or other item and associated work systems. It may involve the use of checklists to ensure comprehensive and consistent coverage.

4.3 *Technical or Scientific Evaluation*

- This may include the application of scientific, chemical and engineering principle and methodology to investigate and analyze risks and their outcomes. (i.e., audiometric measurement of hearing for workers in a noisy environment.)

4.4 *Analysis of Injury or Near Misses Data* [*ATTACHMENT]

- This may involve examining both in-house and other available statistics on injuries and near misses involving shop and associated work systems to reveal underlying patterns. This will assist in estimating the associated risk levels.

5.0 FOLLOW-UP ANALYSIS

- A. The follow-up analysis is used to analyze data and determine the cause and corrective actions necessary to prevent reoccurrence.

Steps:

1. Analyze the data obtained in the initial assessment
2. Repeat any of the prior steps, if necessary
3. Determine a likely sequence of events and probable causes (direct or indirect)
4. Determine the most likely causes
5. Conduct a post assessment briefing

- B. Prepare a summary report, including the recommended actions to prevent a recurrence.

AMPCO

CONTRACTING, INC.

Document:	JOB SAFETY ANALYSIS {JSA}		
Revision #:	Draft 1.0	Document #:	
Revision Date:	14 NOVEMBER 2005	Page:	Page 1 of 2

PROJECT #:	22-001	JSA ANALYSIS BY:	Foreman	DATE	
PROJECT NAME / LOCATION:	XYZ Lofts	REVIEW BY:	Project Manager	DATE	
DATE:	06-01-22	APPROVED BY:	Safety Officer	DATE	

SPECIFIC LOCATION:	Entire 3rd Floor	SPECIFIC TYPE OF JOB:	Interior Demolition
JOB SUPERVISOR:	John McSafety		

SEQUENCE OF JOB STEPS	POTENTIAL HAZARDS	HAZARD CONTROL MEASURES	PROCEDURES / COMMENTS
Remove all lighting fixtures	Electrical shock	(L)ock (O)ut (T)ag (O)ut	Confirm LOTO procedures have been followed and completed
		Training/Testing	Confirm all employees have proper training of LOTO and provided testers
Demo lath & plaster ceiling	Falling debris	Remove manageable pieces	Limit pieces to be handled by (1) person
		Required PPE	Hardhats must be worn at all times
	Cuts and scrapes	Additional PPE	Gloves must be worn at all times
	Working from heights	Scaffold/Fall protection	Scaffold must be inspected daily
			Fall protection must be used at all times
Demo walls	Flying debris	Safe operating distance	Keep all personnel in designated areas
	Exposed screws, nails and studs	Complete removal	Never leave unfinished portions of demo
	Slips trips and falls	Housekeeping	Keep all debris segregated
Concrete coring	Equipment failure	Inspections	Inspect all equipment for safe working order/manufacturers specs
	Pinch points	Proper personnel	Only trained personnel are authorized to use specialty equipment
	Silica dust exposure	Dust control	Use water as needed

13. Probability - Circle the level of probability which you feel that a person or property may be exposed to in a similar situation and that required hazards or system failures may be present or likely. (Example: High = tasks occur frequently and by numerous individuals; Medium = tasks occur on a regular basis by certain individuals; Low = tasks occur infrequently by few individuals.)

HIGH

MEDIUM

LOW

14. Personal Protective Equipment (PPE) Used (if applicable)

15. Primary and contributing factors and activities (Check all that apply)

Equipment

- Equipment failure
- Improper equipment or material used for job
- Guard removed from equipment

Personal Protective Equipment

- Not worn
- Not readily available
- Not adequate for the task
- Personal protective equipment failure

Training & Experience

- Lack of training
- Failure to follow procedures
- New task for employee or lack of experience
- Incomplete safe operating procedure
- Outdated safe operating procedure

Work Area

- Work area set up properly
- Ergonomic factors
- Sanitary and housekeeping issues
- Lack of cord management
- Ice or wet conditions
- Loose handrails
- Chipped tile or loose carpet/rug
- 3 foot clearance in front of electrical panel
- Lack of MSDS

Employee

- Employee fatigue
- Unbalanced or poor position or motion
- Not paying attention
- Improper footwear for conditions
- Going too fast
- Taking short cuts
- Not aware of surroundings
- Lack of policy/procedure
- Poor housekeeping practices
- Improper behavior and attitude
- Disregard for safety rules
- Animal (explain): _____
- Other unsafe practice (explain): _____

Environmental Factors

- Clear
- Rain
- Snow
- Sleet
- Hail
- Other _____

16. Preventative Actions (Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Develop/revise safety policies/procedures and/or update plan | <input type="checkbox"/> Inform employee to slow down |
| <input type="checkbox"/> Request ergonomic evaluation | <input type="checkbox"/> Address attitude and behavior |
| <input type="checkbox"/> Require personal protective equipment | <input type="checkbox"/> Address employee work practices |
| <input type="checkbox"/> Remove equipment from use and repair or replace | <input type="checkbox"/> Maintain housekeeping and sanitary conditions |
| <input type="checkbox"/> Schedule preventative maintenance | <input type="checkbox"/> Work Order completed |
| <input type="checkbox"/> Retrain employee in proper procedures | <input type="checkbox"/> Contact Project Management |
| <input type="checkbox"/> Require Baseline Safety Training | <input type="checkbox"/> Other (explain) _____ |

17. Corrective Actions Taken (What should be done or has been done to prevent recurrence of this incident? E.g. employee training, change of procedures, purchasing of equipment, etc. Use additional sheets if necessary)

Supervisor or Manager Print Name & Signature	Date of Investigation

Job Hazard Analysis

OSHA 3071
2002 (Revised)



OSHA Occupational
Safety and Health
Administration

U.S. Department of Labor

Job Hazard Analysis



U.S. Department of Labor
Elaine L. Chao, Secretary

Occupational Safety and Health Administration
John L. Henshaw, Assistant Secretary

OSHA 3071
2002 (Revised)

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Who needs to read this booklet?

This booklet is for employers, foremen, and supervisors, but we encourage employees to use the information as well to analyze their own jobs and recognize workplace hazards so they can report them to you. It explains what a job hazard analysis is and offers guidelines to help you conduct your own step-by-step analysis.

What is a hazard?

A hazard is the potential for harm. In practical terms, a hazard often is associated with a condition or activity that, if left uncontrolled, can result in an injury or illness. See Appendix 2 for a list of common hazards and descriptions. Identifying hazards and eliminating or controlling them as early as possible will help prevent injuries and illnesses.

What is a job hazard analysis?

A job hazard analysis is a technique that focuses on job tasks as a way to identify hazards before they occur. It focuses on the relationship between the worker, the task, the tools, and the work environment. Ideally, after you identify uncontrolled hazards, you will take steps to eliminate or reduce them to an acceptable risk level.

Why is job hazard analysis important?

Many workers are injured and killed at the workplace every day in the United States. Safety and health can add value to your business, your job, and your life. You can help prevent workplace injuries and illnesses by looking at your workplace operations, establishing proper job procedures, and ensuring that all employees are trained properly.

One of the best ways to determine and establish proper work procedures is to conduct a job hazard analysis. A job hazard analysis is one component of the larger commitment of a safety and health management system. (See page 15 for more information on safety and health management systems.)

What is the value of a job hazard analysis?

Supervisors can use the findings of a job hazard analysis to eliminate and prevent hazards in their workplaces. This is likely to result in fewer worker injuries and illnesses; safer, more effective work methods; reduced workers' compensation costs; and increased worker productivity. The analysis also can be a valuable tool for training new employees in the steps required to perform their jobs safely.

For a job hazard analysis to be effective, management must demonstrate its commitment to safety and health and follow through to correct any uncontrolled hazards identified. Otherwise, management will lose credibility and employees may hesitate to go to management when dangerous conditions threaten them.

What jobs are appropriate for a job hazard analysis?

A job hazard analysis can be conducted on many jobs in your workplace. Priority should go to the following types of jobs:

- Jobs with the highest injury or illness rates;
- Jobs with the potential to cause severe or disabling injuries or illness, even if there is no history of previous accidents;
- Jobs in which one simple human error could lead to a severe accident or injury;
- Jobs that are new to your operation or have undergone changes in processes and procedures; and
- Jobs complex enough to require written instructions.

Where do I begin?

1. **Involve your employees.** It is very important to involve your employees in the hazard analysis process. They have a unique understanding of the job, and this knowledge is invaluable for finding hazards. Involving employees will help minimize oversights, ensure a quality analysis, and get workers to “buy in” to the solutions because they will share ownership in their safety and health program.
2. **Review your accident history.** Review with your employees your worksite’s history of accidents and occupational illnesses that needed treatment, losses that required repair or replacement, and any “near misses” — events in which an accident or loss did not occur, but could have. These events are indicators that the existing hazard controls (if any) may not be adequate and deserve more scrutiny.
3. **Conduct a preliminary job review.** Discuss with your employees the hazards they know exist in their current work and surroundings. Brainstorm with them for ideas to eliminate or control those hazards.

If any hazards exist that pose an immediate danger to an employee’s life or health, take immediate action to protect the worker. Any problems that can be corrected easily should be corrected as soon as possible. Do not wait to complete your job hazard analysis. This will demonstrate your commitment to safety and health and enable you to focus on the hazards and jobs that need more study because of their complexity. For those hazards determined to present unacceptable risks, evaluate types of hazard controls. More information about hazard controls is found in Appendix 1.

4. **List, rank, and set priorities for hazardous jobs.**

List jobs with hazards that present unacceptable risks, based on those most likely to occur and with the most severe consequences. These jobs should be your first priority for analysis.

5. **Outline the steps or tasks.**

Nearly every job can be broken down into job tasks or steps. When beginning a job hazard analysis, watch the employee perform the job and list each step as the worker takes it. Be sure to record enough information to describe each job action without getting overly detailed. Avoid making the breakdown of steps so detailed that it becomes unnecessarily long or so broad that it does not include basic steps. You may find it valuable to get input from other workers who have performed the same job.

Later, review the job steps with the employee to make sure you have not omitted something. Point out that you are evaluating the job itself, not the employee's job performance. Include the employee in all phases of the analysis—from reviewing the job steps and procedures to discussing uncontrolled hazards and recommended solutions.

Sometimes, in conducting a job hazard analysis, it may be helpful to photograph or videotape the worker performing the job. These visual records can be handy references when doing a more detailed analysis of the work.

How do I identify workplace hazards?

A job hazard analysis is an exercise in detective work. Your goal is to discover the following:

- What can go wrong?
- What are the consequences?
- How could it arise?
- What are other contributing factors?
- How likely is it that the hazard will occur?

To make your job hazard analysis useful, document the answers to these questions in a consistent manner. Describing a hazard in this way helps to ensure that your efforts to eliminate the hazard and implement hazard controls help target the most important contributors to the hazard.

Good hazard scenarios describe:

- Where it is happening (environment),
- Who or what it is happening to (exposure),
- What precipitates the hazard (trigger),
- The outcome that would occur should it happen (consequence), and
- Any other contributing factors.

A sample form found in Appendix 3 helps you organize your information to provide these details.

Rarely is a hazard a simple case of one singular cause resulting in one singular effect. More frequently, many

contributing factors tend to line up in a certain way to create the hazard. Here is an example of a hazard scenario:

In the metal shop (environment), while clearing a snag (trigger), a worker's hand (exposure) comes into contact with a rotating pulley. It pulls his hand into the machine and severs his fingers (consequences) quickly.

To perform a job hazard analysis, you would ask:

- **What can go wrong?** The worker's hand could come into contact with a rotating object that "catches" it and pulls it into the machine.
- **What are the consequences?** The worker could receive a severe injury and lose fingers and hands.
- **How could it happen?** The accident could happen as a result of the worker trying to clear a snag during operations or as part of a maintenance activity while the pulley is operating. Obviously, this hazard scenario could not occur if the pulley is not rotating.
- **What are other contributing factors?** This hazard occurs very quickly. It does not give the worker much opportunity to recover or prevent it once his hand comes into contact with the pulley. This is an important factor, because it helps you determine the severity and likelihood of an accident when selecting appropriate hazard controls. Unfortunately, experience has shown that training is not very effective in hazard control when triggering events happen quickly because humans can react only so quickly.

- **How likely is it that the hazard will occur?** This determination requires some judgment. If there have been “near-misses” or actual cases, then the likelihood of a recurrence would be considered high. If the pulley is exposed and easily accessible, that also is a consideration. In the example, the likelihood that the hazard will occur is high because there is no guard preventing contact, and the operation is performed while the machine is running. By following the steps in this example, you can organize your hazard analysis activities.

The examples that follow show how a job hazard analysis can be used to identify the existing or potential hazards for each basic step involved in grinding iron castings.



Grinding Iron Castings: Job Steps

- Step 1.** Reach into metal box to right of machine, grasp casting, and carry to wheel.
- Step 2.** Push casting against wheel to grind off burr.
- Step 3.** Place finished casting in box to left of machine.

Example Job Hazard Analysis Form

<i>Job Location:</i> Metal Shop	<i>Analyst:</i> Joe Safety	<i>Date:</i>
<i>Task Description:</i> Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.		
<i>Hazard Description:</i> Picking up a casting, the employee could drop it onto his foot. The casting's weight and height could seriously injure the worker's foot or toes.		
<i>Hazard Controls:</i> <ol style="list-style-type: none">1. Remove castings from the box and place them on a table next to the grinder.2. Wear steel-toe shoes with arch protection.3. Change protective gloves that allow a better grip.4. Use a device to pick up castings.		

<p>Job Location: Metal Shop</p>	<p>Analyst: Joe Safety</p>	<p>Date:</p>
<p>Task Description: Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.</p>		
<p>Hazard Description: Castings have sharp burrs and edges that can cause severe lacerations.</p>		
<p>Hazard Controls:</p> <ol style="list-style-type: none"> 1. Use a device such as a clamp to pick up castings. 2. Wear cut-resistant gloves that allow a good grip and fit tightly to minimize the chance that they will get caught in grinding wheel. 		

Job Location: Metal Shop	Analyst: Joe Safety	Date:
Task Description: Worker reaches into metal box to the right of the machine, grasps a 15-pound casting and carries it to grinding wheel. Worker grinds 20 to 30 castings per hour.		
Hazard Description: Reaching, twisting, and lifting 15-pound castings from the floor could result in a muscle strain to the lower back.		
Hazard Controls: <ol style="list-style-type: none"> 1. Move castings from the ground and place them closer to the work zone to minimize lifting. Ideally, place them at waist height or on an adjustable platform or pallet. 2. Train workers not to twist while lifting and reconfigure work stations to minimize twisting during lifts. 		

**Repeat similar forms
for each job step.**

How do I correct or prevent hazards?

After reviewing your list of hazards with the employee, consider what control methods will eliminate or reduce them. For more information on hazard control measures, see Appendix 1. The most effective controls are engineering controls that physically change a machine or work environment to prevent employee exposure to the hazard. The more reliable or less likely a hazard control can be circumvented, the better. If this is not feasible, administrative controls may be appropriate. This may involve changing how employees do their jobs.

Discuss your recommendations with all employees who perform the job and consider their responses carefully. If you plan to introduce new or modified job procedures, be sure they understand what they are required to do and the reasons for the changes.

What else do I need to know before starting a job hazard analysis?

The job procedures discussed in this booklet are for illustration only and do not necessarily include all the steps, hazards, and protections that apply to your industry. When conducting your own job safety analysis, be sure to consult the Occupational Safety and Health Administration standards for your industry. Compliance with these standards is mandatory, and by incorporating their requirements in your job hazard analysis, you can be sure that your health and safety program meets federal standards. OSHA standards, regulations, and technical information are available online at www.osha.gov.

Twenty-four states and two territories operate their own OSHA-approved safety and health programs and may have standards that differ slightly from federal requirements. Employers in those states should check with the appropriate state agency for more information. A list of applicable states and territories and contact information is provided on page 32.

Why should I review my job hazard analysis?

Periodically reviewing your job hazard analysis ensures that it remains current and continues to help reduce workplace accidents and injuries. Even if the job has not changed, it is possible that during the review process you will identify hazards that were not identified in the initial analysis.

It is particularly important to review your job hazard analysis if an illness or injury occurs on a specific job. Based on the circumstances, you may determine that you need to change the job procedure to prevent similar incidents in the future. If an employee's failure to follow proper job procedures results in a "close call," discuss the situation with all employees who perform the job and remind them of proper procedures. Any time you revise a job hazard analysis, it is important to train all employees affected by the changes in the new job methods, procedures, or protective measures adopted.

When is it appropriate to hire a professional to conduct a job hazard analysis?

If your employees are involved in many different or complex processes, you need professional help conducting your job hazard analyses. Sources of help include your insurance company, the local fire department, and private consultants with safety and health expertise. In addition, OSHA offers assistance through its regional and area offices and consultation services. Contact numbers are listed at the back of this publication.

Even when you receive outside help, it is important that you and your employees remain involved in the process of identifying and correcting hazards because you are on the worksite every day and most likely to encounter these hazards. New circumstances and a recombination of existing circumstances may cause old hazards to reappear and new hazards to appear. In addition, you and your employees must be ready and able to implement whatever hazard elimination or control measures a professional consultant recommends.

OSHA Assistance, Services, and Programs

How can OSHA help me?

OSHA can provide extensive help through a variety of programs, including assistance about safety and health programs, state plans, workplace consultations, Voluntary Protection Programs, strategic partnerships, training and education, and more.

How does safety and health program management assistance help employers and employees?

Effective management of worker safety and health protection is a decisive factor in reducing the extent and severity of work-related injuries and illnesses and their related costs. In fact, an effective safety and health program forms the basis of good worker protection and can save time and money—about \$4 for every dollar spent—and increase productivity.

To assist employers and employees in developing effective safety and health systems, OSHA published recommended *Safety and Health Program Management Guidelines*, (*Federal Register* 54(18):3908–3916, January 26, 1989). These voluntary guidelines can be applied to all worksites covered by OSHA.

The guidelines identify four general elements that are critical to the development of a successful safety and health management program:

- Management leadership and employee involvement;
- Worksite analysis;
- Hazard prevention and control; and
- Safety and health training.

Appendices

Appendix 1

Hazard Control Measures

Information obtained from a job hazard analysis is useless unless hazard control measures recommended in the analysis are incorporated into the tasks. Managers should recognize that not all hazard controls are equal. Some are more effective than others at reducing the risk.

The order of precedence and effectiveness of hazard control is the following:

1. Engineering controls.
2. Administrative controls.
3. Personal protective equipment.

Engineering controls include the following:

- Elimination/minimization of the hazard—Designing the facility, equipment, or process to remove the hazard, or substituting processes, equipment, materials, or other factors to lessen the hazard;
- Enclosure of the hazard using enclosed cabs, enclosures for noisy equipment, or other means;
- Isolation of the hazard with interlocks, machine guards, blast shields, welding curtains, or other means; and
- Removal or redirection of the hazard such as with local and exhaust ventilation.

Administrative controls include the following:

- Written operating procedures, work permits, and safe work practices;
- Exposure time limitations (used most commonly to control temperature extremes and ergonomic hazards);
- Monitoring the use of highly hazardous materials;
- Alarms, signs, and warnings;
- Buddy system; and
- Training.

Personal Protective Equipment—such as respirators, hearing protection, protective clothing, safety glasses, and hardhats—is acceptable as a control method in the following circumstances:

- When engineering controls are not feasible or do not totally eliminate the hazard;
- While engineering controls are being developed;
- When safe work practices do not provide sufficient additional protection; and
- During emergencies when engineering controls may not be feasible.

Use of one hazard control method over another higher in the control precedence may be appropriate for providing interim protection until the hazard is abated permanently. In reality, if the hazard cannot be eliminated entirely, the adopted control measures will likely be a combination of all three items instituted simultaneously.

Appendix 2

Common Hazards and Descriptions

Hazards	Hazard Descriptions
Chemical (Toxic)	A chemical that exposes a person by absorption through the skin, inhalation, or through the blood stream that causes illness, disease, or death. The amount of chemical exposure is critical in determining hazardous effects. Check Material Safety Data Sheets (MSDS), and/or OSHA 1910.1000 for chemical hazard information.
Chemical (Flammable)	A chemical that, when exposed to a heat ignition source, results in combustion. Typically, the lower a chemical's flash point and boiling point, the more flammable the chemical. Check MSDS for flammability information.
Chemical (Corrosive)	A chemical that, when it comes into contact with skin, metal, or other materials, damages the materials. Acids and bases are examples of corrosives.
Explosion (Chemical Reaction)	Self explanatory.
Explosion (Over Pressurization)	Sudden and violent release of a large amount of gas/energy due to a significant pressure difference such as rupture in a boiler or compressed gas cylinder.
Electrical (Shock/ Short Circuit)	Contact with exposed conductors or a device that is incorrectly or inadvertently grounded, such as when a metal ladder comes into contact with power lines. 60Hz alternating current (common house current) is very dangerous because it can stop the heart.

Hazards	Hazard Descriptions
Electrical (Fire)	Use of electrical power that results in electrical overheating or arcing to the point of combustion or ignition of flammables, or electrical component damage.
Electrical (Static/ESD)	The moving or rubbing of wool, nylon, other synthetic fibers, and even flowing liquids can generate static electricity. This creates an excess or deficiency of electrons on the surface of material that discharges (spark) to the ground resulting in the ignition of flammables or damage to electronics or the body's nervous system.
Electrical (Loss of Power)	Safety-critical equipment failure as a result of loss of power.
Ergonomics (Strain)	Damage of tissue due to overexertion (sprains and strains) or repetitive motion.
Ergonomics (Human Error)	A system design, procedure, or equipment that is error-provocative. (A switch goes up to turn something off).
Excavation (Collapse)	Soil collapse in a trench or excavation as a result of improper or inadequate shoring. Soil type is critical in determining the hazard likelihood.
Fall (Slip, Trip)	Conditions that result in falls (impacts) from height or traditional walking surfaces (such as slippery floors, poor housekeeping, uneven walking surfaces, exposed ledges, etc.)
Fire/Heat	Temperatures that can cause burns to the skin or damage to other organs. Fires require a heat source, fuel, and oxygen.
Mechanical/ Vibration (Chaffing/ Fatigue)	Vibration that can cause damage to nerve endings, or material fatigue that results in a safety-critical failure. (Examples are abraded slings and ropes, weakened hoses and belts.)

Hazards	Hazard Descriptions
Mechanical Failure	Self explanatory; typically occurs when devices exceed designed capacity or are inadequately maintained.
Mechanical	Skin, muscle, or body part exposed to crushing, caught-between, cutting, tearing, shearing items or equipment.
Noise	Noise levels (>85 dBA 8 hr TWA) that result in hearing damage or inability to communicate safety-critical information.
Radiation (Ionizing)	Alpha, Beta, Gamma, neutral particles, and X-rays that cause injury (tissue damage) by ionization of cellular components.
Radiation (Non-Ionizing)	Ultraviolet, visible light, infrared, and microwaves that cause injury to tissue by thermal or photochemical means.
Struck By (Mass Acceleration)	Accelerated mass that strikes the body causing injury or death. (Examples are falling objects and projectiles.)
Struck Against	Injury to a body part as a result of coming into contact of a surface in which action was initiated by the person. (An example is when a screwdriver slips.)
Temperature Extreme (Heat/Cold)	Temperatures that result in heat stress, exhaustion, or metabolic slow down such as hypothermia.
Visibility	Lack of lighting or obstructed vision that results in an error or other hazard.
Weather Phenomena (Snow/Rain/Wind/Ice)	Self explanatory.

Appendix 3

Sample Job Hazard Analysis Form

<i>Job Title:</i>	<i>Job Location:</i>	<i>Analyst</i>	<i>Date</i>
<i>Task #</i>	<i>Task Description:</i>		
<i>Hazard Type:</i>	<i>Hazard Description:</i>		
<i>Consequence:</i>	<i>Hazard Controls:</i>		
<i>Rational or Comment:</i>			



**Occupational Safety
and Health Administration**

U.S. Department of Labor



JOB SAFETY ANALYSIS (JSA) PLAN

**AMPCO CONTRACTING, INC.
17991 COWAN IRVINE CA 92614**

DATE REVIEWED: 06/2022

DISCIPLINARY ACTION POLICY

A. PURPOSE:

1. Enforcement of the **Company Safety Policies** is necessary in achieving good safety performance and eliminating unsafe behaviors resulting in safety violations necessitating appropriate disciplinary measures.

B. SCOPE:

1. The primary objective this policy is to support the ongoing integrity of the company's Safety Rules, Policies & Procedures, and the continued management of maintaining a healthy and safe workplace environment free from recognized hazards.

2. When Safety Policies and Procedures are violated or individuals continue to practice unsafe behaviors that may put themselves or others at risk, then disciplinary action must be considered in order to maintain commitment to the company's safety mission.

3. A violation of company policy may require the facilitation of a **Safety Violation & Disciplinary Corrective Action FORM** and recorded on file. (*APPENDIX)

▶Management is required to issue appropriate safety specific instructions and training to all employees prior to assigning them work.

▶Management is also responsible for coordinating such work to ensure that it can be accomplished in a safe manner without harm.

▶Employees are individually responsible for his/her own safety and accountability.

▶Employees must comply with each of the provisions of the Health & Safety Management System and all of its Plans, Programs, and Policies & Procedures whether verbally communicated and/or written.

▶Employees neglecting to follow a required safety related practice or fail to perform an action that leads to a near miss or incident, depending on the severity, may also be grounds for disciplinary action.

▶All company personnel, including management, must adhere to all company safety policies & procedures.

C. PROCEDURE:

1. **New Hires**- All new employees shall participate in a *New Hire Safety Orientation* as a part of the general hiring process. The company's mission of being aligned with good safe work habits is disseminated to each individual. All employees are advised that safety cooperation and compliance with all of the policies and procedures is a condition of work. The Health & Safety Program shall be explained and responsibilities clearly defined.

2. **Employee's Duty**- When an employee is observed committing or engaging in an unsafe act, all employees have the duty to inform the employee of their unsafe behavior or non-compliant act. Management shall be immediately notified and appropriate action taken.

3. **Safety Rules & Policies**- Any deviation from the company *Rules and Policies* shall be addressed accordingly, per the California Code of Regulations, Title 8, §3203, of the Injury and Illness Prevention Program (IIPP).

DISCIPLINARY ACTION POLICY

D. PROGRESSIVE DISCIPLINARY ACTION:

▶ Under normal circumstances, disciplinary actions are set forth in a progressively elevated multi-step fashion. If the nature of the violation is so severe that put the individual or others at a higher level of risk, circumstances could dictate that immediate counseling may lead to suspension and/or termination.

❶ Step One: **VERBAL WARNING**

A verbal warning shall be issued for minor violations of workplace safety policies. If a violation of this type occurs, the manager or supervisor shall meet with the employee for a [coaching session](#) to discuss the unsafe behavior and/or actions, making sure the nature of violation is expressed and understood along with the expected corrective action and/or solution.

- ▶ Employees may be given *up to three (3) verbal warnings* in a period of 12 months, depending on the severity, before progressing to the next disciplinary action level.
- ▶ 1 verbal warning followed by a 2nd more serious violation may dictate an immediate written warning.
- ▶ This warning shall be documented as an informal record by the manager or supervisor.
- ▶ File the verbal warning record in the employee's personnel file.

❷ Step Two: **WRITTEN WARNING**

A written warning shall be issued for conduct that violates workplace safety policies that have been either addressed in a previous verbal warning and the behavior has persisted -or- the circumstances surrounding the violation is severe enough whereas someone could have been injured or property compromised. If a violation of this type occurs, the manager or supervisor shall immediately meet with the employee for a [counseling & retraining session](#) to discuss the unsafe behavior and/or actions, making sure the nature of violation is expressed and understood along with the expected corrective action and/or solution.

- ▶ Employees are allowed *one (1) written warning* in a period of 12 months before progressing to the next disciplinary action level dependent upon the severity of the incident.
- ▶ This warning shall be documented as a formal written record, signed and reviewed my management.
- ▶ Make two copies, have employee sign both and give one to them to acknowledge receipt.
- ▶ File the master signed written warning record in the employee's personnel file.

❸ Step Two: **FINAL WARNING, SUSPENSION UP TO TERMINATION**

A final written warning shall be issued for serious conduct that violates workplace safety policies that have been either addressed in a previous written warning within 12 months and the behavior has persisted -or- the circumstances surrounding the violation is extremely severe whereas someone could have been seriously or fatally injured or property seriously compromised. If a violation of this type occurs, the manager or supervisor shall immediately meet with the employee for a [performance review](#) detailing the policy for zero tolerance for unsafe behavior and/or actions, making sure the nature of violation is expressed and understood along with the expected corrective action and/or solution. Severe circumstances may dictate further suspension up to termination. A probationary period may be imposed.

- ▶ Employees shall be given *one (1) final warning*. Any further safety violation reprimand regardless of severity may be grounds for immediate termination.
- ▶ This warning shall be documented as a formal written record, signed and reviewed my management.
- ▶ Make two copies, have employee sign both and give one to them to acknowledge receipt.
- ▶ File the master signed final warning record in the employee's personnel file.

DISCIPLINARY ACTION POLICY

APPENDIX 1: Safety Violation & Disciplinary Corrective Action FORM

Company Name:		
Workers Name:	Title:	Date:
Disciplinary Action Type: <input type="checkbox"/> Verbal Warning <input type="checkbox"/> Written Warning <input type="checkbox"/> Final Warning		
Violation Type: <input checked="" type="checkbox"/> one <input type="checkbox"/> Unsafe Behavior or Act <input type="checkbox"/> Complacency Leading to an Accident, Near Miss, Unsafe Condition, or Unsafe Behavior <input type="checkbox"/> Negligence Resulting in an Accident, Near Miss, Unsafe Condition, or Unsafe Behavior		
Description of Incident Including the Safety Violation: list any witnesses 		
Description of Location/Area Where Violation Occurred: 		
Type of Policy Violated as Described Above: <input checked="" type="checkbox"/> all that apply <input type="checkbox"/> Safety Rule(s) <input type="checkbox"/> Safety Plan(s) <input type="checkbox"/> Safety Procedure(s)		
Describe the Correct & Safe Behavior: 		
Describe the Corrective Action Taken: <input checked="" type="checkbox"/> one and note a brief detail <input type="checkbox"/> Instructed on the proper safe behavior or act▶ <input type="checkbox"/> Coached and retrained on the spot on procedure(s) and/or plan(s)▶ <input type="checkbox"/> Counseled and classroom retraining required on procedure(s) and/or plan(s)▶		
Worker Acknowledges Receipt of a Copy of this Disciplinary Action: 		
Individuals Signature:		Date:
Completed By:		
Supervisor/Foreman Signature:		Date:
Manager Signature:		Date:

Check Here if Worker Refuses to Sign

NOTICE OF SAFETY VIOLATION

EMPLOYEE NAME _____ SS#: ____/____/____
TODAY'S DATE ____/____/____ VIOLATION DATE ____/____/____ VIOLATION TIME _____
VIOLATION PLACE _____

NATURE OF VIOLATION

REPORTED BY _____ TITLE _____

EMPLOYEE STATEMENT:

____ I agree with the company statement above. ____ I do not agree with the company statement above.

EMPLOYEE SIGNATURE _____ DATE _____

We consider the safety of our employees to be very important. To prevent accidents, our policy is to strictly enforce company safety rules. Infraction of safety rules will result in the following;

MINOR VIOLATIONS:

1. 1st violation – Verbal Warning
2. 2nd violation (same issue) – Written Warning & Retraining
3. 3rd violation (same issue) – Written Warning, Retraining, 3-day Suspension, & Performance Improvement Plan (30-, 60-, & 90-day review)
4. 4th violation (same issue) – Written Warning, Retraining, 1 week Suspension
5. 5th violation (same issue) – Termination

MAJOR VIOLATIONS:

1. 1st violation – Written Warning, Retraining, & 3-day Suspension
2. 2nd violation – Written Warning, Retraining, & 1 week Suspension
3. 3rd violation – Termination

This is your ____1st ____2nd ____3rd ____4th ____5th violation.

Action taken therefore is _____

Supervisor Name & Signature _____ Date _____

Employee Name & Signature _____ Date _____

AMPCO Employee Injury & Investigation Report

INCIDENT INFORMATION

Date of Incident:	Time:	Office Location:	Co. #	Job Number:	Job Name: <input type="checkbox"/> Check if OCIP
Job Address:				Shift Start/End Time:	
				Days/Wk & Hrs/Day:	
Project Manager Name:			Supervisor Name:		
Date of Report if Different from Date of Incident:			Supervisor Contact No.:		
Project Supervisor Notified? <input type="checkbox"/> Yes <input type="checkbox"/> No			When?		Who?
Health & Safety Representative Notified? <input type="checkbox"/> Yes <input type="checkbox"/> No			When?		Who?

INJURED EMPLOYEE

Name:		Address:			
Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female	Phone:				
Occupation & Code (A=Asb, D=Demo, O=Other):			Age:	DOB:	
Social Security Number:		Employee No.:		Date of Hire:	
Wage Rate:	No. of Dependents:	Marital Status:		Yrs of Exp:	
Nature of Injury		<input type="checkbox"/> Bruise/Contusion	<input type="checkbox"/> Carbon Monoxide	Injured Part of Body:	
<input type="checkbox"/> Strain / Sprain	<input type="checkbox"/> Scratch/Abrasion	<input type="checkbox"/> Dislocation			
<input type="checkbox"/> Fracture	<input type="checkbox"/> Crushing	<input type="checkbox"/> Internal		Remarks:	
<input type="checkbox"/> Laceration/Cut	<input type="checkbox"/> Burn/Scald	<input type="checkbox"/> Foreign Body			
<input type="checkbox"/> Electrical Shock	<input type="checkbox"/> Slip/Trip/Fall	<input type="checkbox"/> Chemical Reaction			
<input type="checkbox"/> Other (specify):					
Treatment		Treating Physician or Facility:			
<input type="checkbox"/> First Aid on Site	Address:				
<input type="checkbox"/> Occupational Clinic					
<input type="checkbox"/> Emergency Room	Phone:				
<input type="checkbox"/> Hospitalization	How was employee transported to Physician or Facility:				

DAMAGED PROPERTY

Property Damaged:	Describe Damage:
Object or Substance Inflicting Damage:	

DAMAGED EQUIPMENT

<input type="checkbox"/> AMPCO Equipment	<input type="checkbox"/> Rental Equipment	Describe Damage:
Rental Company Name:		
Equipment Serial No.:		
Object or Substance Inflicting Damage:		

DESCRIBE WHAT HAPPENED (attach Employee Statement of Injury form, include photographs if necessary)

WITNESSES (attach Witness Statement forms for each)

Please list the name, contact number and address of any witnesses:

THIRD PARTY

Was cause of incident due to negligence of a 3rd party? <input type="checkbox"/> Yes <input type="checkbox"/> No	Provide Name:
Address:	Phone Number:
Employer Name/Address: <input type="checkbox"/> Check if party on duty during incident	

Employee Injury & Investigation Report

Injured Name:	Employee No.:	DOI:
---------------	---------------	------

INCIDENT ANALYSIS

Using the root cause analysis list below, explain the cause(s) of the incident in as much detail as possible.

Were Safeguards or Safety Equipment Provided? <input type="checkbox"/> Yes <input type="checkbox"/> No	Were They Used? <input type="checkbox"/> Yes <input type="checkbox"/> No
As a result of this incident, was employee Drug Tested? <input type="checkbox"/> Yes <input type="checkbox"/> No	Was employee Alcohol Tested? <input type="checkbox"/> Yes <input type="checkbox"/> No

ROOT CAUSE ANALYSIS (Check All That Apply)

Unsafe Acts	Unsafe Conditions	Management Deficiencies
<input type="checkbox"/> Improper work technique	<input type="checkbox"/> Extreme temperature (hot or cold)	<input type="checkbox"/> Lack of written procedures or policies
<input type="checkbox"/> Safety rule violation	<input type="checkbox"/> Congested work area	<input type="checkbox"/> Safety rules not enforced
<input type="checkbox"/> Improper PPE or PPE unused	<input type="checkbox"/> Hazardous substance	<input type="checkbox"/> Hazards not identified
<input type="checkbox"/> Operating without authority	<input type="checkbox"/> Fire or explosion hazard	<input type="checkbox"/> Safety equipment unavailable
<input type="checkbox"/> Failure to warn or secure	<input type="checkbox"/> Inadequate ventilation	<input type="checkbox"/> Insufficient work training
<input type="checkbox"/> Operating at improper speed	<input type="checkbox"/> Improper material storage	<input type="checkbox"/> Insufficient supervisor training
<input type="checkbox"/> By-passing safety devices	<input type="checkbox"/> Improper tool or equipment	<input type="checkbox"/> Improper maintenance
<input type="checkbox"/> Guards not used	<input type="checkbox"/> Insufficient knowledge of job	<input type="checkbox"/> Non-compliance not corrected
<input type="checkbox"/> Improper loading or placement	<input type="checkbox"/> Slippery condition	<input type="checkbox"/> Inadequate job planning
<input type="checkbox"/> Improper lifting	<input type="checkbox"/> Poor housekeeping	<input type="checkbox"/> Inadequate job oversight
<input type="checkbox"/> Line of Fire	<input type="checkbox"/> Excessive noise	<input type="checkbox"/> Inadequate workplace inspections
<input type="checkbox"/> Horseplay	<input type="checkbox"/> Inadequate guarding of hazards	<input type="checkbox"/> Inadequate equipment
<input type="checkbox"/> Drug or Alcohol use	<input type="checkbox"/> Defective tools/equipment	<input type="checkbox"/> Unsafe design or construction
<input type="checkbox"/> Unnecessary haste	<input type="checkbox"/> Insufficient lighting	<input type="checkbox"/> Inadequate communication of expectations
<input type="checkbox"/> Unsafe act of others	<input type="checkbox"/> Inadequate fall protection	<input type="checkbox"/> Improper performance is rewarded
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

How often is this task performed? Frequent Occasional Rare

PREVENTIVE ACTIONS

Describe actions that will be taken to prevent recurrence.	Deadline	By Whom	Date Completed

REPORT REVIEW

Supervisor's Signature:	Print Name of Signer:	Date Reviewed:
Safety Officer Signature:	Print Name of Signer:	Date Reviewed:

Employee and Supervisor Report of Injury or Illness

Injured Employee Name: _____ SSN (Last 4): _____
Client Company: _____

EMPLOYEE REPORT OF INJURY (this section is completed by the employee reporting an injury/illness)

Employee Address: _____ Phone: _____

Email Address: _____ Job Position: _____

Normal Work Hours: _____ a.m. p.m. to _____ a.m. p.m. Days Off: M T W Th F Sa Su

Date and Time of Injury: _____ a.m. p.m. Time employee began work: _____ a.m. p.m.

Date and Time First Reported: _____ a.m. p.m. Injury reported to: _____

Worksite location where injury occurred (include address): _____

Describe how the injury/illness happened and the body part(s) affected: _____

When did you first seek medical attention? Date and Time: _____ a.m. p.m.

Name and address of medical provider: _____

Have you treated for this type of injury in the past? Yes No If yes, when? Date: _____

If yes, where did you treat? (Name, address, phone): _____

What are you doing to prevent similar injuries or additional injuries/illness? _____

Employee Signature: _____ Date: _____

SUPERVISOR INVESTIGATION OF INJURY (If supervisor was not present, they must interview witnesses)

Supervisor Name: _____ Department: _____

Date and Time of Injury: _____ a.m. p.m. Date and Time Reported: _____ a.m. p.m.

Reported to Whom: _____ Did you see the incident happen? Yes No

How did the injury occur? _____

Describe injury and body part affected: _____

Where was medical care provided?: _____ Date and Time: _____ a.m. p.m.

Did the employee continue to work after the injury? Yes No If no, why? _____

Do you question the validity? Yes No If yes, why? _____

List known prior injuries the employee has had: _____

Specify if it was an unsafe condition (i.e. equipment malfunction, co-worker, employee or other contractor), describe how it has been corrected: _____

If it was an unsafe act by the employee or by a co-workers, what corrective action has been taken (i.e. write up for not wearing safety glasses)? _____

What are you doing to eliminate this type of accident in the future? _____

Additional Comments: _____

Supervisor Signature: _____ Date: _____

Informe de lesión o enfermedad de empleado y supervisor

Nombre del empleado lesionado: _____ No. de SS (últimos 4): _____

Compañía del cliente: _____

INFORME DE LESIÓN DEL EMPLEADO (esta sección es completada por el empleado que informa una lesión/enfermedad)

Dirección del empleado: _____ Teléfono: _____

Correo electrónico: _____ Puesto laboral: _____

Horario de trabajo normal: ____ a.m. p.m. a ____ a.m. p.m. Días libres: L M M J V Sa Do

Fecha y hora de la lesión: _____ a.m. p.m.

Horario en el que comenzó a trabajar el empleado: ____ a.m. p.m.

Fecha y hora en la que se reportó por primera vez: _____ a.m. p.m.

Lesión reportada a: _____

Lugar de trabajo donde ocurrió la lesión (incluya la dirección): _____

Describa cómo ocurrió la lesión/enfermedad y la(s) parte(s) del cuerpo afectada(s): _____

¿Cuándo fue al médico por primera vez? Fecha y hora: _____ a.m. p.m.

Nombre y dirección del proveedor médico: _____

¿Le han hecho tratamiento por esta lesión en el pasado? Sí No Si sí, ¿cuándo? Fecha: _____

Si sí, ¿dónde fue tratado? (Nombre, dirección, teléfono): _____

¿Qué está haciendo para evitar lesiones similares o lesiones/enfermedades adicionales? _____

Firma del empleado: _____ Fecha: _____

INVESTIGACIÓN DE LESIÓN POR PARTE DEL SUPERVISOR (Si el supervisor no estaba presente, debe entrevistar testigos)

Nombre del supervisor: _____ Departamento: _____

Fecha y hora de la lesión: _____ a.m. p.m.

Fecha y hora en la que se reportó: _____ a.m. p.m.

Reportada a quién: _____ ¿Vio cómo pasó el incidente? Sí No

¿Cómo ocurrió la lesión? _____

Describa la lesión y la parte del cuerpo afectada: _____

¿Dónde se proporcionó atención médica?: _____ Fecha y hora: _____ a.m. p.m.

¿El empleado continuó trabajando después de la lesión? Sí No Si no, ¿por qué? _____

¿Cuestiona la validez de la lesión? Sí No Si sí, ¿por qué? _____

Haga una lista de las lesiones previas conocidas del empleado: _____

Especifique si fue una circunstancia peligrosa (es decir, mal funcionamiento del equipo, compañero de trabajo, empleado u otro contratista). Describa cómo se ha corregido: _____

Si fue una acción peligrosa por el empleado o por los compañeros de trabajo, ¿qué medida correctiva se ha tomado (es decir, advertencia escrita por no usar gafas de seguridad)? _____

¿Qué está haciendo para eliminar este tipo de accidente en el futuro? _____

Comentarios adicionales _____

Firma del supervisor: _____ Fecha: _____

Cal/OSHA Form 301

Injury and Illness Incident Report

Appendix C

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.
See CCR Title 8 14300.29(b)(6)-(10)



Department of Industrial Relations
Division of Occupational Safety & Health

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with *Log of Work-Related Injuries and Illnesses* and the accompanying *Annual Summary*, these forms help the employer and Cal/OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the instructions and information asked for on this form.

According to CCR Title 8 Section 14300.33 Cal/OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Completed by _____

Title _____

Phone (____) _____-_____ Date ____/____/____

Information about the employee

- 1) Full name _____
- 2) Street _____
- City _____ State _____ ZIP _____
- 3) Date of birth ____/____/____
- 4) Date hired ____/____/____
- 5) Male
 Female

Information about the physician or other health care professional

- 6) Name of physician or other health care professional _____
- 7) If treatment was given away from the worksite, where was it given?
- Facility _____
- Street _____
- City _____ State _____ ZIP _____
- 8) Was employee treated in an emergency room?
 Yes
 No
- 9) Was employee hospitalized overnight as an in-patient?
 Yes
 No

Information about the case

- 10) Case number from the Log _____ (Transfer the case number from the Log after you record the case.)
- 11) Date of injury or illness ____/____/____
- 12) Time employee began work _____ AM / PM
- 13) Time of event _____ AM / PM Check if time cannot be determined
- 14) What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."
- 15) What happened? Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."
- 16) What was the injury or illness? Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or "sore." Examples: "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."
- 17) What object or substance directly harmed the employee? Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.
- 18) If the employee died, when did death occur? Date of death ____/____/____

Jobsite Inspection Checklist

Job No. _____ Job Name _____ Date _____

Jobsite Inspection by (Name and Signature) _____

General Contractor _____

Foreman _____ Superintendent _____

Safety Officer _____

Subcontractors Onsite - Company Name	Trade
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Some of the questions in the checklist may not apply to all job sites; conversely, additional questions may be necessary.

	OK	NOT OK	N/A	Action Taken
Job Information, Permits and Notifications				
• Dig Alert called and ticket up to date				
• OSHA 300 forms are posted onsite and complete				
• OSHA safety poster is posted onsite in English and Spanish				
• SCAQMD Notifications are onsite and up to date				
• SCAQMD Equipment Permits are onsite and up to date				
• OSHA Notifications are onsite and to up to date				
• Excavation / Trenching Permit is current and onsite				
• Copy of Demolition / Grading Permit onsite				
• Copy of Asbestos Survey onsite for demolition and grading				
• Personal air monitoring results are posted onsite				
• Weekly Safety Meeting topics are current and up to date				
• Work areas have proper signange and barricades				
• Worker certificates are onsite for all applicable trades				
• Emergency Contact form on site and filled out				
General Requirements				
• Illness & injury Prevention Manual on site				
• Code of Safe Practices on site				
• Heat Illness Prevention Plan on site				
• Hazard Communication Manual				
• Material Safety Data Sheets on site				
• Toilets and Sanitary conditions				
• Hand Washing Facilities				
• Drinking Water and Cups				
• Cool down station with adequate shade on site				
• Emergency Eyewash Station on site and up to date				

Jobsite Inspection Checklist

	OK	NOT OK	N/A	Action Taken
Emergency and First Aid				
• Emergency Plan onsite				
• Name & directions to nearest Hospital & Urgent Care posted				
• Adequate number of trained First-Aid/CPR employees onsite				
• First-aid kits are stocked and readily available				
• Emergency Contact form onsite and filled out for all employees				
Traffic Control				
• Worker training on traffic control completed and certs onsite				
• Proper Personal Protective Equipment (proper signage)				
• Signs clear and legible				
• Hazards adequately protected				
• Emergency communication (radio)				
• Stop/Slow sign paddles				
• Traffic vest being worn				
Housekeeping				
• General neatness of work area				
• Projecting rebar or objects removed or bent over				
• Waste containers provided and used adequately				
• Walkways and stairs kept clear of debris for emergency access				
• Working area cleared of construction debris				
• Track out of soil in road				
• Dust and debris removed from exterior of site as needed				
Fire Prevention				
• Adequate fire extinguishers, checked and accessible onsite				
• Fire extinguishers onsite are proper for exposure				
• Phone number of local fire department is posted onsite				
• "No Smoking" signs posted & enforced near flammables				
• Paints and solvents properly labeled and stored				
• Flammable waste, rubbish removed daily				
• Torching on combustibles				
• Hot Work Permit form is completed and posted onsite				
• Fire watch after 30 minutes of hot work				
• Approved fuel containers are properly labeled				
• Flammable liquids are stored in designated areas only				
• Fueling stations are properly sized and contained				
Electrical				
• Electrical equipment marked, grounded and guarded				
• Portable tools grounded or double insulated				

Jobsite Inspection Checklist

	OK	NOT OK	N/A	Action Taken
• Extension cords and plugs in good condition				
• Ground fault circuit interrupter (GFCI) being used				
• Damaged equipment & tools are red-tagged and not in use				
• Employees working around electrical possess an electrical tester				
• Cords are not in standing water				
Hand, Power & Powder Actuated Tools				
• Hand tools inspected regularly				
• Guards are in place on tools and machines				
• Power tools are secured to air hoses, air hoses to compressor				
• Is the right tool being used for the job				
Fall Protection				
• Safety rails and cables are secured properly				
• Employees exposed to fall hazards are tied off				
• Employees below protected from falling objects				
• Fall Hazard Analysis completed and onsite				
• Fall Hazard Assessment / Written Plan completed and onsite				
• Fall Protection Equipment Inspection/Training completed				
Ladders				
• Ladders extend at least 36" above the landing				
• Ladders are secured to prevent slipping, sliding or falling				
• Ladders with split or missing rungs taken out of service				
• Stepladders used in fully open position				
• No step at top two rungs of stepladder				
• There are no wood ladders being used				
Scaffolding				
• All scaffolding inspected daily				
• Erected on sound rigid footing				
• Tied to structure as required				
• Guardrails, mid-rails, toe boards and outriggers are being used				
• Planking is sound and sturdy				
• Proper access provided				
• Employees below are protected from falling objects				
Floor & Wall Openings				
• All floor or wall openings are covered and anchored down				
• Perimeter protection is in place				
• Materials and debris stockpiles are stored away from edges				

Jobsite Inspection Checklist

	OK	NOT OK	N/A	Action Taken
Trenches, Excavation and Shoring				
• Competent person onsite				
• Excavations are shored or sloped back per site & soil conditions				
• Materials are stored at least two feet from trench edges				
• Ladders are provided every 25 feet in trench for access				
• Equipment is a safe distance from edge of trench or excavation				
• Warning tape or visual barriers are installed				
Material Handling				
• Materials are properly stored or stacked				
• Employees are using proper lifting methods				
• Tag lines are used to guide loads				
• Proper number of workers for each operation				
Welding & Burning				
• Gas cylinders stored upright and fastened				
• Acetylene and Oxygen are stored at least 20 feet apart or separated by a 5-foot high barrier				
• Proper separating distance between fuels and oxygen				
• Metal valve caps are in place on all cylinders not in use				
• Burning/welding goggles or shields are used				
• Fire extinguishers are nearby				
• Hoses are in good condition				
• Welding curtains secured				
Cranes				
• Outriggers are extended & swing radius barricade in place				
• Operator is familiar with load charts				
• Hand signal charts are on crane				
• Crane operators logs are up-to-date				
• Employees kept away from under suspended loads				
• Chains and slings inspected and tagged as required				
• Equipment Inspection Checklist is completed and onsite				
Heavy Equipment				
• Employees are protected from dust				
• Equipment Inspection Checklists are completed and onsite				
• Operator Certificates are onsite				
• Laborers at least 25' away from operating equipment at all times				
• Back up alarms and lights are properly working				
• Overhead guards/ROPs are installed on equipment				

Jobsite Inspection Checklist

	OK	NOT OK	N/A	Action Taken
Personal Protective Equipment				
• Hardhats and safety vests are being worn				
• Safety glasses are being worn				
• Respirators are used when required				
• Positive and negative fit check test each time respirator is used				
• Extra respirator cartridges are available				
• Hand protection (gloves, cut-resistant gloves/sleeves, etc.)				
• Ear protection (ear plugs, ear muffs, etc.)				
Noise Control				
• Noise survey of all areas performed				
• Written hearing conservation program in place				
• Hearing protection provided where decibels exceeds action level				
• Employees wearing approved hearing protection correctly				
SWPPP				
• All gravel bags, straw waddles, silt fence are in good condition				
• All site entrances are setup with crushed rock & shaker plates				
• All drains or catch basins are covered with filter fabric				
• Containment area for heavy equipment, fluid drums being used				
• Extra SWPPP materials and spill kits are on site				
Dust Control				
• No visible dust emissions are leaving the construction fence line				
• Adequate water supply is available and being used				
Other Items				
•				
•				
•				
•				
•				
TOTALS				% (POSITIVE/TOTAL OBSERVATIONS):
Additional Comments				

Jobsite Inspection Checklist

ACTION PLAN FOR HAZARD CORRECTION

The safety deficiencies identified during ___/___/___ inspection/investigation by _____ (name) will be corrected. This action plan will be developed to resolve each specific item (hazards, needed policies, etc.) by a set completion date and by those assigned responsibility. This form will be used to document identified problems, steps to be taken and completion deadline.

	Major Action Items To Be Resolved	Priority (Assign each step a priority #)	Projected Completion Date	Date Completed
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

GARAGE/SHOP SAFETY CHECKLIST

Date inspection conducted: _____ Location: _____

Name(s) of those participating in this inspection: _____

INDICATE EITHER: A = Acceptable/Yes; U = Unacceptable/No; N/A = Not Applicable

PERSONAL PROTECTIVE EQUIPMENT	EMERGENCY/OSHA RELATED ITEMS
Safety glasses and/or goggles available + used?	Emergency phone #'s and evacuation map posted?
Protective eyewear use specified in writing?	Emergency eyewash and/or shower units accessible?
Noise protection provided for loud work?	First aid kit + BBP kit available at work site?
Hand protection used/worn as required?	First aid trained competent person available?
Foot protection worn as required?	Fire extinguishers readily available (not blocked)?
Welding helmet, gloves, apron, and curtain available?	Fire extinguishers inspected monthly/yearly as needed?
Respirator or proper ventilation available?	DOSH poster mounted in prominent location?
Supplies on hand for incidental chemical spills?	Safety bulletin board contains up to date information?

ELECTRICAL SAFETY ISSUES	ELECTRICAL SAFETY ISSUES
GFCI's used for all portable electrical hand tools?	Light bulbs for illumination protected from breakage?
Extension cords rated for hard or extra hard usage? 3 wire marked = S, ST, SO, STO, SJ, SJO, SJT + SJTO	Grounding and or bonding integrity maintained for chemical dispensing?
Certified or listed equipment used per manufacturer?	Electrical cords inspected & have all prongs in tact?
Electrical panels labeled appropriately?	Strain relief in tact for all flexible cords & plug fittings?
Electrical panel knockouts in place?	Pressure washer grounded per NEC requirements?
Electrical panel access requirements maintained?	Double insulated or grounded electric power tools used?

GENERAL SHOP SAFETY & HEALTH ISSUES	HAZARD COMMUNICATION
General housekeeping is neat and orderly?	MSDS openly available to all employees?
Lockout/Tagout used for appropriate tasks?	MSDS inventory contains all items in the garage/shop?
Do all areas have adequate illumination?	All hazardous containers labeled appropriately?
New employees trained on safety procedures?	Flammable liquids are in FM/UL metal safety cans?
Job safety analysis or safe work procedures in writing?	Flammable liquids storage containers labeled properly?
At a minimum, monthly safety inspections done?	Oily rags placed in covered metal containers?
Near-miss/close call reporting system is in place?	Hazardous liquids stored below eye level?

Copy the completed inspection sheet to: _____

If marked "U" for unacceptable or no; list the appropriate corrective action on the reverse side

Shop/Maintenance Checklist

These are reminders from 29 CFR Part 1910 that would be applicable to a fixed and or mobile facility. This may not be an inclusive list applicable to your location and or every thing listed may not be applicable to your operation.

- .22(a) All floors, storerooms, etc shall be kept clean, orderly and in a sanitary manner.
 - (b) Aisles and passageways shall be kept clear (28" min) and in good repair.
 - (c) Covers and or guardrails shall be provided for open pits, tanks, vats, etc.
 - (d) Floor loading shall be placarded and approved by building official.

- .23(c) Open sided floors shall have a standard guard rail which consists of Top rail (42"), mid-rail (21"), and a toe board (if small items are stored overhead and persons are working below).
 - (d) All stairs have to have a handrail at least on right hand descending side. If both sides are open, then have on both sides.

- .24(b) Have to have access to another level if employees use daily, on each shift, or equipment requires routine maintenance.
 - (e) Angle of stair has to be from 30-50 degrees.
 - (f) Riser height and tread width shall be uniform through out stairs (<1/4")
 - (h) Hand rails are required from 34"max to 30" min measured from leading edge of tread.
 - (i) Vertical clearance above stair tread shall be 7' measured from overhead obstruction.

- .26 Ladders must be inspected, used in proper manner, and set up properly.

- .36(b) Each building has to have an approved exit (side hinged door).
 - (d) Every exit has to be maintained free of all obstructions to full instant use. All emergency equipment has to be maintained in continuous operating condition.

- .37(q) All side hinged doors will be labeled as to its use, i.e. Exit, Storage, etc., or Not an Exit.

- .38(a) All buildings will have an emergency action plan IAW (a)(2).

- .101(b) All compressed gas cylinders shall be handled according to Compressed Gas Association Pamphlet P-1-1965 which states that all cylinders will be secured from being knocked over. All flammable gases (acetylene) and accelerants (oxygen) shall be separated by 20' and or a 5' high fire wall equal to 1.5 hours (8"block wall, 2x4 wall with sheet rock on both sides, etc).

.106 Flammables have to be stored IAW the appropriate charts based on quantity. Fixed gas pumps need the proper electrical wiring for a classified location, fire extinguisher within 15- 25', and No Smoking signs posted.

.110(b) LP tanks shall have no combustible material within 10' of tank to include grass. Tanks exceeding 500 Gallons can be no closer than 10' from any part of the building. Have to be protected from vehicular traffic unless protected by location.

.132(a) Protective equipment, including personal protective equipment for head, eyes, face, and extremities, protective clothing, respiratory devices, protective shields/barriers, shall be provided, used, and maintained in a sanitary and reliable condition.

(d) Employer shall accomplish a hazard assessment annually.

(f) Employer shall train employees in proper care, maintenance, useful life and when PPE is necessary.

.141(a)(5) Every workplace shall prevent the entrance or harborage of rodents, insects, and other vermin.

.141(b) Potable water has to be supplied and individual drinking containers provided.

(c) Each place of employment has to have toilet facilities.

(d) Washing facilities shall be maintained in a sanitary condition and have tepid water.

.145(a) Use safety tags to define specific hazards that may lead to injury to employees.

.147(d) Specific procedures for LOTO if applicable.

.151(b/c) Need first aid kit and eye wash/shower (requires weekly check) if corrosive materials are used.

.157(c) shall have approved and mounted fire extinguishers for incipient staged fires.

(e) Annual maintenance check and a monthly visual check.

(g) Train employees how to use extinguisher.

.176(b) Storage of material/equipment/supplies shall not create a hazard and shall be stacked, blocked, and limited in height so that they are stable and secure against sliding or collapse.

.177(c) Employer shall provide a training program for employees who service rim wheels.

(d) Employer shall furnish and require use of a restraining device when servicing multi-piece rims. Employer shall provide a restraining device for wheel inflation on single piece rims unless the wheel is inflated on the vehicle and or equipment used to change the tire.

.178-181 Cranes/electric hoists/chain falls(see CSB for difference and requirements)

.212(a)(3) Point of operation guarding for machines is required unless required by another SUBPART.

(b) Fixed machinery shall be securely anchored to prevent walking or moving. (Drill presses for example)

.215(a)(4) Work rest on Bench grinder not at 1/8" or less.

(b)(9) Tongue guard not installed or exceeds 1/4".

.219 All belts, sprockets, wheels, chain drives, drive shafts, etc. below 7' have to be guarded.

Rule of thumb: If it moves, rotates, spins, etc., guard it

.242(a) All tools whether furnished by employer or employee has to maintained in safe condition. That is to say it can not be modified, altered, etc.

Rule of thumb: If you can't buy the tool in that condition, don't use it. If you can't purchase the correct tool.

.242(b) Compressed air used for cleaning must be reduced below 30 PSI. Also suggest safety nozzle for blow down. No radiator clamps on pneumatic lines.

.243 Most hand held power tools require a constant pressure power switch, some exceptions.

(c)(3) Portable grinders must have 180 guard on located between the operator and the work.

.244 Jacks must be capable of the lift, inspected at least every 6 months, have a rated load legibly and permanently marked in a prominent place on the jack.

.252(a)(2) Welding special precautions-- Always have a fire watch with a readily available fire extinguisher when welding if there are any combustibles in the area. PPE is covered under.132. Use screens to prevent flash blindness of fellow employees.

.253(a) General-- Use approved devices for mixing flammable gases. Don't use acetylene in excess of 15 psig. All cylinders with a water weight of 30 pounds have to have a collar, means of attaching a valve protection cap, and or a recess to protect the valve. Each cylinder shall have a fixed hand wheel, or have a key, handle, or nonadjustable wrench on the valve stem when in use. Cylinders will be

in use (on cart with regulators installed) and or in proper storage. Never lay an acetylene cylinder down on its side.

.254 Arc welding-- No splices, mars, or open conductors within 10' of electrode holder. Joining lengths of work/cables shall be via approved means (vise grips are not acceptable). Lugs shall be covered via a door, guard, and or lug covers. Operators shall inspect and report any defects or safety hazards to the supervisor and discontinue the use of equipment until repairs are made by a qualified person.

.303(b)(1) Electrical equipment shall be free from recognized hazards.

(2) All electrical devices shall be used and installed with their listing and labeling from manufacture.

(c) All splices shall be covered with and insulation equivalent to that of the conductor-- No electrical tape.

(e) Electrical equipment must have the manufactures name, trademark, or other descriptive marking on the product.

(f) Each service, feeder, and its branch circuit must be legibly marked at its disconnecting means.

(g)(1) A clear working space of 3' must be available in front of all electrical equipment, i.e. panel boxes, disconnects, etc.

(g)(2) Live parts of electrical equipment operating at 50 Volts or more shall be guarded via a cabinet, room, vault, or similar enclosure, 8' above working surface.

.304(e)(iv) Overcurrent devices shall be readily accessible to all employees and or authorized building management personnel.

(e)(vi) Circuit breakers shall clearly indicate whether they are in the open/closed position, i.e. no tape over breakers.

(f)(4) The path to ground from circuits, equipment, and enclosures shall be permanent and continuous.

(f)(v) Equipment connected by cord and plug have to be grounded if in hazardous locations, operated at 150 Volts to ground, refrigerators, appliances, hand held motor operated tools, portable hand lamps, and any tools likely to be used in a wet/damp location. Note: Tools need not be grounded if supplied through and isolating transformer with an ungrounded secondary of not over 50 Volts or by an approved system of double insulation.(Tool must have marking that stipulates double insulation.)

.305(b)(1) Conductors entering boxes, cabinets, or fittings shall be protected from abrasions and the holes shall be effectively closed. (Use grommets and or Romex connectors). All unused openings will be effectively closed (use metal or plastic pop-ins for holes in cabinets and boxes and blanker plates in panel boxes).

(b)(2) All pull boxes, junction boxes, and fittings shall have a cover installed approved for the purpose.(Should not see any wires or wire nuts). Panel boxes

must have a dead front installed. Light switches and receptacles must have a cover/face plate.

(e)(2) Switches, circuit breakers, and switchboards installed in wet/damp locations must be enclosed in weatherproof enclosures, i.e. must be installed such that moisture or water can not enter and accumulate.

(g)(1) Flexible cords can not be used:

- as a substitute for fixed wiring.
- Run through holes in walls, ceilings and floors, doorways, windows and other similar openings.
- Attached to building structures.
- Or concealed behind floors, ceilings, or walls.

(g)(2) Flexible cords can not be spliced or tapped.

(g)(3) Flexible cords must have strain relief.

.307(b) Equipment, wiring methods, and installations of equipment in Hazardous (classified) locations shall be intrinsically safe, approved for the location, or safe for the location.

Note: In a shop, the area within 18" of the floor and any pit or painting area will be a classified location. Therefore, if the mechanics are breaking down gasoline engines and or using a creeper to go under vehicles, they need a classified trouble light.

.1200 HAZCOM - Need same program as for other employees and follow sample in booklet.

HAZARD ASSESSMENT CHECKLIST



The following checklist can be used to identify and evaluate hazards in your workplace. This checklist covers a wide variety of workplace safety and health hazards. All of the topics covered in this checklist may not apply to your particular workplace. When evaluating your workplace use the sections of the checklist that apply to your workplace and work activities.

GENERAL WORK ENVIRONMENT

- Are all worksites clean and orderly?
- Are work surfaces kept dry or appropriate means taken to assure the surfaces are slip-resistant?
- Are all spilled materials or liquids cleaned up immediately?
- Is combustible scrap, debris and waste stored safely and removed from the worksite promptly?
- Is accumulated combustible dust routinely removed from elevated surfaces, including the overhead structure of buildings?
- Is combustible dust cleaned up with a vacuum system to prevent the dust going into suspension?
- Is metallic or conductive dust prevented from entering or accumulation on or around electrical enclosures or equipment?
- Are covered metal waste cans used for oily and paint-soaked waste?
- Are all oil and gas fired devices equipped with flame failure controls that will prevent flow of fuel if pilots or main burners are not working?
- Are paint spray booths, dip tanks and the like cleaned regularly?
- Are the minimum number of toilets and washing facilities provided?
- Are all toilets and washing facilities clean and sanitary?
- Are all work areas adequately illuminated?
- Are pits and floor openings covered or otherwise guarded?

PERSONAL PROTECTIVE EQUIPMENT

- Are protective goggles or face shields provided and worn where there is any danger of flying particles or corrosive materials?
- Are approved safety glasses required to be worn at all times in areas where there is a risk of eye injuries such as punctures, abrasions, contusions or burns?
- Are employees who need corrective lenses (glasses or contacts lenses) in working environments with harmful exposures, required to wear only approved safety glasses, protective goggles, or use other medically approved precautionary procedures?
- Are protective gloves, aprons, shields, or other means provided against cuts, corrosive liquids and chemicals?

- Are hard hats provided and worn where danger of falling objects exists?
- Are hard hats inspected periodically for damage to the shell and suspension system?
- Is appropriate foot protection required where there is the risk of foot injuries from hot, corrosive, poisonous substances, falling objects, crushing or penetrating actions?
- Are approved respirators provided for regular or emergency use where needed?
- Is all protective equipment maintained in a sanitary condition and ready for use?
- Do you have eye wash facilities and a quick drench shower within the work area where employees are exposed to injurious corrosive materials?
- Where special equipment is needed for electrical workers, is it available?
- When lunches are eaten on the premises, are they eaten in areas where there is no exposure to toxic materials or other health hazards?
- Is protection against the effects of occupational noise exposure provided when sound levels exceed those of the Cal/OSHA noise standard?

WALKWAYS

- Are aisles and passageways kept clear?
- Are aisles and walkways marked as appropriate?
- Are wet surfaces covered with non-slip materials?
- Are holes in the floor, sidewalk or other walking surface repaired properly, covered or otherwise made safe?
- Is there safe clearance for walking in aisles where motorized or mechanical handling equipment is operating.
- Are spilled materials cleaned up immediately?
- Are materials or equipment stored in such a way that sharp projectiles will not interfere with the walkway?
- Are changes of direction or elevations readily identifiable?
- Are aisles or walkways that pass near moving or operating machinery, welding operations or similar operations arranged so employees will not be subjected to potential hazards?
- Is adequate headroom provided for the entire length of any aisle or walkway?
- Are standard guardrails provided wherever aisle or walkway surfaces are elevated more than 30 inches above any adjacent floor or the ground?
- Are bridges provided over conveyors and similar hazards?

FLOOR AND WALL STAIRWAYS

- Are floor openings guarded by a cover, guardrail, or equivalent on all sides (except at entrance to stairways or ladders)?
- Are toeboards installed around the edges of a permanent floor opening (where persons may pass below the opening)?
- Are skylight screens of such construction and mounting that they will withstand a load of at least 200 pounds?
- Is the glass in windows, doors, glass walls that are subject to human impact, of sufficient thickness and type for the condition of use?
- Are grates or similar type covers over floor openings such as floor drains, of such design that foot traffic or rolling equipment will not be affected by the grate spacing?
- Are unused portions of service pits and pits not actually in use either covered or protected by guardrails or equivalent?
- Are manhole covers, trench covers and similar covers, plus their supports, designed to carry a truck rear axle load of at least 20,000 pounds when located in roadways and subject to vehicle traffic?
- Are floor or wall openings in fire resistive construction provided with doors or covers compatible with the fire rating of the structure and provided with self-closing feature when appropriate?

STAIRS & STAIRWAYS

- Are standard stair rails or handrails on all stairways having four or more risers?
- Are all stairways at least 22 inches wide?
- Do stairs have at least a 6'6" overhead clearance?
- Do stairs angle no more than 50 and no less than 30 degrees?
- Are stairs of hollow-pan type treads and landings filled to noising level with solid material?
- Are step risers on stairs uniform from top to bottom, with no riser spacing greater than 7-1/2 inches?
- Are steps on stairs and stairways designed or provided with a surface that renders them slip resistant?
- Are stairway handrails located between 30 and 34 inches above the leading edge of stair treads?
- Do stairway handrails have a least 1-1/2 inches of clearance between the handrails and the wall or surface they are mounted on?
- Are stairway handrails capable of withstanding a load of 200 pounds, applied in any direction?
- Where stairs or stairways exit directly into any area where vehicles may be operated, are adequate barriers and warnings provided to prevent employees stepping into the path of traffic?
- Do stairway landings have a dimension measured in the direction of travel, at least equal to width of the stairway?
- Is the vertical distance between stairway landings limited to 12 feet or less?

ELEVATED SURFACES

- Are signs posted, when appropriate, showing the elevated surface load capacity?
- Are surfaces elevated more than 30 inches above the floor or ground provided with standard guardrails?
- Are all elevated surfaces (beneath which people or machinery could be exposed to falling objects) provided with standard 4-inch toeboards?
- Is a permanent means of access and egress provided to elevated storage and work surfaces?
- Is required headroom provided where necessary?
- Is material on elevated surfaces piled, stacked or racked in a manner to prevent it from tipping, falling, collapsing, rolling or spreading?
- Are dock boards or bridge plates used when transferring materials between docks and trucks or rail cars?

EXITING OR EGRESS

- Are all exits marked with an exit sign and illuminated by a reliable light source?
- Are the directions to exits, when not immediately apparent, marked with visible signs?
- Are doors, passageways or stairways, that are neither exits nor access to exits and which could be mistaken for exits, appropriately marked "NOT AN EXIT", "TO BASEMENT", "STOREROOM", and the like?
- Are exit signs provided with the word "EXIT" in lettering at least 5 inches high and the stroke of the lettering at least 1/2 inch wide?
- Are exit doors side-hinged?
- Are all exits kept free of obstructions?
- Are at least two means of egress provided from elevated platforms, pits or rooms where the absence of a second exit would increase the risk of injury from hot, poisonous, corrosive, suffocating, flammable, or explosive substances?
- Are there sufficient exits to permit prompt escape in case of emergency?
- Are special precautions taken to protect employees during construction and repair operations?
- Is the number of exits from each floor of a building, and the number of exits from the building itself, appropriate for the building occupancy load?
- Are exit stairways which are required to be separated from other parts of a building enclosed by at least two hour fire-resistive construction in buildings more than four stories in height, and not less than one-hour fire resistive construction elsewhere?
- When ramps are used as part of required exiting from a building, is the ramp slope limited to 1-foot vertical and 12 feet horizontal?
- Where exiting will be through frameless glass doors, glass exit doors, storm doors, and such are the doors fully tempered and meet the safety requirements for human impact?

EXIT DOORS

- Are doors that are required to serve as exits designed and constructed so that the way of exit travel is obvious and direct?
- Are windows that could be mistaken for exit doors, made inaccessible by means of barriers or railings?
- Are exit doors openable from the direction of exit travel without the use of a key or any special knowledge or effort, when the building is occupied?
- Is a revolving, sliding or overhead door prohibited from serving as a required exit door?
- Where panic hardware is installed on a required exit door, will it allow the door to open by applying a force of 15 pounds or less in the direction of the exit traffic?
- Are doors on cold storage rooms provided with an inside release mechanism that will release the latch and open the door even if it's padlocked or otherwise locked on the outside?
- Where exit doors open directly onto any street, alley or other area where vehicles may be operated, are adequate barriers and warnings provided to prevent employees stepping into the path of traffic?
- Are doors that swing in both directions and are located between rooms where there is frequent traffic, provided with viewing panels in each door?

PORTABLE LADDERS

- Are all ladders maintained in good condition, joints between steps and side rails tight, all hardware and fittings securely attached, and moveable parts operating freely without binding or undue play?
- Are non-slip safety feet provided on each ladder?
- Are non-slip safety feet provided on each metal or rung ladder?
- Are ladder rungs and steps free of grease and oil?
- Is it prohibited to place a ladder in front of doors opening toward the ladder except when the door is blocked open, locked or guarded?
- Is it prohibited to place ladders on boxes, barrels, or other unstable bases to obtain additional height?
- Are employees instructed to face the ladder when ascending or descending?
- Are employees prohibited from using ladders that are broken, missing steps, rungs, or cleats, broken side rails or other faulty equipment?
- Are employees instructed not to use the top 2 steps of ordinary stepladders as a step?
- When portable rung ladders are used to gain access to elevated platforms, roofs, and the like does the ladder always extend at least 3 feet above the elevated surface?
- Is it required that when portable rung or cleat type ladders are used the base is so placed that slipping will not occur, or it is lashed or otherwise held in place?
- Are portable metal ladders legibly marked with signs reading "CAUTION" "Do Not Use Around Electrical Equipment" or equivalent wording?
- Are employees prohibited from using ladders as guys, braces, skids, gin poles, or for other than their intended purposes?
- Are employees instructed to only adjust extension ladders while standing at a base (not while standing on the ladder or from a position above the ladder)?
- Are metal ladders inspected for damage?
- Are the rungs of ladders uniformly spaced at 12 inches, center to center?

HAND TOOLS & EQUIPMENT

- Are all tools and equipment (both, company and employee-owned) used by employees at their workplace in good condition?
- Are hand tools such as chisels, punches, which develop mushroomed heads during use, reconditioned or replaced as necessary?
- Are broken or fractured handles on hammers, axes and similar equipment replaced promptly?
- Are worn or bent wrenches replaced regularly?
- Are appropriate handles used on files and similar tools?
- Are employees made aware of the hazards caused by faulty or improperly used hand tools?
- Are appropriate safety glasses, face shields, and similar equipment used while using hand tools or equipment that might produce flying materials or be subject to breakage?
- Are jacks checked periodically to assure they are in good operating condition?
- Are tool handles wedged tightly in the head of all tools?
- Are tool cutting edges kept sharp so the tool will move smoothly without binding or skipping?
- Are tools stored in dry, secure location where they won't be tampered with?
- Is eye and face protection used when driving hardened or tempered spuds or nails?

PORTABLE (POWER OPERATED) TOOLS & EQUIPMENT

- Are grinders, saws, and similar equipment provided with appropriate safety guards?
- Are power tools used with the correct shield, guard or attachment recommended by the manufacturer?
- Are portable circular saws equipped with guards above and below the base shoe?
- Are circular saw guards checked to assure they are not wedged up, thus leaving the lower portion of the blade unguarded?
- Are rotating or moving parts of equipment guarded to prevent physical contact?

- Are all cord-connected, electrically operated tools and equipment effectively grounded or of the approved double insulated type?
- Are effective guards in place over belts, pulleys, chains, and sprockets, on equipment such as concrete mixers, air compressors, and the like?
- Are portable fans provided with full guards or screens having openings 1/2 inch or less?
- Is hoisting equipment available and used for lifting heavy objects, and are hoist ratings and characteristics appropriate for the task?
- Are ground-fault circuit interrupters provided on all temporary electrical 15 and 20 ampere circuits, used during periods of construction?
- Are pneumatic and hydraulic hoses on power-operated tools checked regularly for deterioration or damage?

ABRASIVE WHEEL EQUIPMENT GRINDERS

- Is the work rest used and kept adjusted to within 1/8 inch of the wheel?
- Is the adjustable tongue on the top side of the grinder used and kept adjusted to within 1/4 inch of the wheel?
- Do side guards cover the spindle, nut, and flange and 75 percent of the wheel diameter?
- Are bench and pedestal grinders permanently mounted?
- Are goggles or face shields always worn when grinding?
- Is the maximum RPM rating of each abrasive wheel compatible with the RPM rating of the grinder motor?
- Are fixed or permanently mounted grinders connected to their electrical supply system with metallic conduit or other permanent wiring method?
- Does each grinder have an individual on and off control switch?
- Is each electrically operated grinder effectively grounded?
- Before new abrasive wheels are mounted, are they visually inspected and ring tested?
- Are dust collectors and powered exhausts provided on grinders used in operations that produce large amounts of dust?
- Are splashguards mounted on grinders that use coolant, to prevent the coolant reaching employees?
- Is cleanliness maintained around grinder?

POWDER ACTUATED TOOLS

- Are employees who operate powder-actuated tools trained in their use and carry a valid operator's card?
- Do the powder-actuated tools being used have written approval of the Division of Occupational Safety and Health?
- Is each powder-actuated tool stored in its own locked container when not being used?
- Is a sign at least 7" by 10" with bold type reading "POWDER-ACTUATED TOOL IN USE" conspicuously posted when the tool is being used?
- Are powder-actuated tools left unloaded until they are actually ready to be used?
- Are powder-actuated tools inspected for obstructions or defects each day before use?
- Do powder-actuated tools operators have and use appropriate personal protective equipment such as hard hats, safety goggles, safety shoes and ear protectors?

MACHINE GUARDING

- Is there a training program to instruct employees on safe methods of machine operation?
- Is there adequate supervision to ensure that employees are following safe machine operating procedures?
- Is there a regular program of safety inspection of machinery and equipment?
- Is all machinery and equipment kept clean and properly maintained?
- Is sufficient clearance provided around and between machines to allow for safe operations, set up and servicing, material handling and waste removal?
- Is equipment and machinery securely placed and anchored, when necessary to prevent tipping or other movement that could result in personal injury?
- Is there a power shut-off switch within reach of the operator's position at each machine?
- Can electric power to each machine be locked out for maintenance, repair, or security?

- Are the noncurrent-carrying metal parts of electrically operated machines bonded and grounded?
- Are foot-operated switches guarded or arranged to prevent accidental actuation by personnel or falling
- Are manually operated valves and switches controlling the operation of equipment and machines clearly identified and readily accessible?
- Are all emergency stop buttons colored red?
- Are all pulleys and belts that are within 7 feet of the floor or working level properly guarded?
- Are all moving chains and gears properly guarded?
- Are splashguards mounted on machines that use coolant, to prevent the coolant from reaching employees?
- Are methods provided to protect the operator and other employees in the machine area from hazards created at the point of operation, ingoing nip points, rotating parts, flying chips, and sparks?
- Are machinery guards secure and so arranged that they do not offer a hazard in their use?
- If special hand tools are used for placing and removing material, do they protect the operator's hands?
- Are revolving drums, barrels, and containers required to be guarded by an enclosure that is interlocked with the drive mechanism, so that revolution cannot occur unless the guard enclosure is in place, so guarded?
- Do arbors and mandrels have firm and secure bearings and are they free from play?
- Are provisions made to prevent machines from automatically starting when power is restored after a power failure or shutdown?
- Are machines constructed so as to be free from excessive vibration when the largest size tool is mounted and run at full speed?
- If machinery is cleaned with compressed air, is air pressure controlled and personal protective equipment or other safeguards used to protect operators and other workers from eye and body injury?
- Are fan blades protected with a guard having openings no larger than 1/2 inch, when operating within 7 feet of the floor?
- Are saws used for ripping, equipped with anti-kick back devices and spreaders?
- Are radial arm saws so arranged that the cutting head will gently return to the back of the table when released?

LOCKOUT BLOCKOUT PROCEDURES

- Is all machinery or equipment capable of movement, required to be de-energized or disengaged and blocked or locked out during cleaning, servicing, adjusting or setting up operations, whenever required?
- Is the locking-out of control circuits in lieu of locking-out main power disconnects prohibited?
- Are all equipment control valve handles provided with a means for locking-out?
- Does the lockout procedure require that stored energy (i.e. mechanical, hydraulic, air,) be released or blocked before equipment is locked-out for repairs?
- Are appropriate employees provided with individually keyed personal safety locks?
- Are employees required to keep personal control of their key(s) while they have safety locks in use?
- Is it required that employees check the safety of the lock out by attempting a start up after making sure no one is exposed?
- Where the power disconnecting means for equipment does not also disconnect the electrical control circuit:
- Are the appropriate electrical enclosures identified?
- Is means provide to assure the control circuit can also be disconnected and locked out?

WELDING, CUTTING & BRAZING

- Are only authorized and trained personnel permitted to use welding, cutting or brazing equipment?
- Do all operator have a copy of the appropriate operating instructions and are they directed to follow them?
- Are compressed gas cylinders regularly examined for obvious signs of defects, deep rusting, or leakage?
- Is care used in handling and storage of cylinders, safety valves, relief valves, and the like, to prevent damage?
- Are precautions taken to prevent the mixture of air or oxygen with flammable gases, except at a burner or in a standard torch?

- Are only approved apparatus (torches, regulators, pressure-reducing valves, acetylene generators, manifolds) used?
- Are cylinders kept away from sources of heat?
- Is it prohibited to use cylinders as rollers or supports?
- Are empty cylinders appropriately marked their valves closed and valve-protection caps on?
- Are signs reading: DANGER NO-SMOKING, MATCHES, OR OPEN LIGHTS, or the equivalent posted?
- Are cylinders, cylinder valves, couplings, regulators, hoses, and apparatus keep free of oily or greasy substances?
- Is care taken not to drop or strike cylinders?
- Unless secured on special trucks, are regulators removed and valve-protection caps put in place before moving cylinders?
- Do cylinders without fixed hand wheels have keys, handles, or non-adjustable wrenches on stem valves when in service?
- Are liquefied gases stored and shipped valve-end up with valve covers in place?
- Are employees instructed to never crack a fuel-gas cylinder valve near sources of ignition?
- Before a regulator is removed, is the valve closed and gas released from the regulator?
- Is red used to identify the acetylene (and other fuel-gas) hose, green for oxygen hose, and black for inert gas and air hose?
- Are pressure-reducing regulators used only for the gas and pressures for which they are intended?
- Is open circuit (No Load) voltage of arc welding and cutting machines as low as possible and not in excess of the recommended limits?
- Under wet conditions, are automatic controls for reducing no-load voltage used?
- Is grounding of the machine frame and safety ground connections of portable machines checked periodically?

- Are electrodes removed from the holders when not in use?
- Is it required that electric power to the welder be shut off when no one is in attendance?
- Is suitable fire extinguishing equipment available for immediate use?
- Is the welder forbidden to coil or loop welding electrode cable around his body?
- Are wet machines thoroughly dried and tested before being used?
- Are work and electrode lead cables frequently inspected for wear and damage, and replaced when needed?
- Do means for connecting cables' lengths have adequate insulation?
- When the object to be welded cannot be moved and fire hazards cannot be removed, are shields used to confine heat, sparks, and slag?
- Are firewatchers assigned when welding or cutting is performed, in locations where a serious fire might develop?
- Are combustible floors kept wet, covered by damp sand, or protected by fire-resistant shields?
- When floors are wet down, are personnel protected from possible electrical shock?
- When welding is done on metal walls, are precautions taken to protect combustibles on the other side?
- Before hot work is begun, are used drums, barrels, tanks, and other containers so thoroughly cleaned that no substances remain that could explode, ignite, or produce toxic vapors?
- Is it required that eye protection helmets, hand shields and goggles meet appropriate standards?
- Are employees exposed to the hazards created by welding, cutting, or bracing operations protected with personal protective equipment and clothing?
- Is a check made for adequate ventilation in and where welding or cutting is performed?
- When working in confined places are environmental monitoring tests taken and means provided for quick removal of welders in case of an emergency?

COMPRESSORS & COMPRESSED AIR

- Are compressors equipped with pressure relief valves, and pressure gauges?
- Are compressor air intakes installed and equipped to ensure that only clean uncontaminated air enters the compressor?
- Are air filters installed on the compressor intake?

- Are compressors operated and lubricated in accordance with the manufacturer's recommendations?
- Are safety devices on compressed air systems checked frequently?
- Before any repair work is done on the pressure system of a compressor, is the pressure bled off and the system locked-out?
- Are signs posted to warn of the automatic starting feature of the compressors?
- Is the belt drive system totally enclosed to provide protection for the front, back, top, and sides?
- Is it strictly prohibited to direct compressed air towards a person?
- Are employees prohibited from using highly compressed air for cleaning purposes?
- If compressed air is used for cleaning off clothing, is the pressure reduced to less than 10 psi?
- When using compressed air for cleaning, do employees use personal protective equipment?
- Are safety chains or other suitable locking devices used at couplings of high pressure hose lines where a connection failure would create a hazard?
- Before compressed air is used to empty containers of liquid, is the safe working pressure of the container checked?
- When compressed air is used with abrasive blast cleaning equipment, is the operating valve a type that must be held open manually?
- When compressed air is used to inflate auto tires, is a clip-on chuck and an inline regulator preset to 40 psi required?
- Is it prohibited to use compressed air to clean up or move combustible dust if such action could cause the dust to be suspended in the air and cause a fire or explosion hazard?

COMPRESSED AIR RECEIVERS

- Is every receiver equipped with a pressure gauge and with one or more automatic, spring-loaded safety valves?
- Is the total relieving capacity of the safety valve capable of preventing pressure in the receiver from exceeding the maximum allowable working pressure of the receiver by more than 10 percent?
- Is every air receiver provided with a drainpipe and valve at the lowest point for the removal of accumulated oil and water?
- Are compressed air receivers periodically drained of moisture and oil?
- Are all safety valves tested frequently and at regular intervals to determine whether they are in good operating condition?
- Is there a current operating permit issued by the Division of Occupational Safety and Health?
- Is the inlet of air receivers and piping systems kept free of accumulated oil and carbonaceous materials?

COMPRESSED GAS & CYLINDERS

- Are cylinders with a water weight capacity over 30 pounds equipped with means for connecting a valve protector device, or with a collar or recess to protect the valve?
- Are cylinders legibly marked to clearly identify the gas contained?
- Are compressed gas cylinders stored in areas which are protected from external heat sources such as flame impingement, intense radiant heat, electric arcs, or high temperature lines?
- Are cylinders located or stored in areas where they will not be damaged by passing or falling objects, or subject to tampering by unauthorized persons?
- Are cylinders stored or transported in a manner to prevent them creating a hazard by tipping, falling or rolling?
- Are cylinders containing liquefied fuel gas, stored or transported in a position so that the safety relief device is always in direct contact with the vapor space in the cylinder?
- Are valve protectors always placed on cylinders when the cylinders are not in use or connected for use?
- Are all valves closed off before a cylinder is moved, when the cylinder is empty, and at the completion of each job?
- Are low pressure fuel-gas cylinders checked periodically for corrosion, general distortion, cracks, or any other defect that might indicate a weakness or render it unfit for service?
- Does the periodic check of low pressure fuel-gas cylinders include a close inspection of the cylinders' bottom?

HOIST & AUXILIARY EQUIPMENT

- Is each overhead electric hoist equipped with a limit device to stop the hook travel at its highest and lowest point of safe travel?
- Will each hoist automatically stop and hold any load up to 125 percent of its rated load, if its actuating force is removed?
- Is the rated load of each hoist legibly marked and visible to the operator?
- Are stops provided at the safe limits of travel for trolley hoist?
- Are the controls of hoists plainly marked to indicate the direction of travel or motion?
- Is each cage-controlled hoist equipped with an effective warning device?
- Are close-fitting guards or other suitable devices installed on hoist to assure hoist ropes will be maintained in the sheave groves?
- Are all hoist chains or ropes of sufficient length to handle the full range of movement for the application while still maintaining two full wraps on the drum at all times?
- Are nip points or contact points between hoist ropes and sheaves which are permanently located within 7 feet of the floor, ground or working platform, guarded?
- Is it prohibited to use chains or rope slings that are kinked or twisted?
- Is it prohibited to use the hoist rope or chain wrapped around the load as a substitute, for a sling?
- Is the operator instructed to avoid carrying loads over people?
- Are only employees who have been trained in the proper use of hoists allowed to operate them?

INDUSTRIAL TRUCKS - FORKLIFTS

- Are only trained personnel allowed to operate industrial trucks?
- Is substantial overhead protective equipment provided on high lift rider equipment?
- Are the required lift truck operating rules posted and enforced?
- Is directional lighting provided on each industrial truck that operates in an area with less than 2 foot candles per square foot of general lighting?
- Does each industrial truck have a warning horn, whistle, gong or other device which can be clearly heard above the normal noise in the areas where operated?
- Are the brakes on each industrial truck capable of bringing the vehicle to a complete and safe stop when fully loaded?
- Will the industrial truck's parking brake effectively prevent the vehicle from moving when unattended?
- Are industrial trucks operating in areas where flammable gases or vapors, or combustible dust or ignitable fibers may be present in the atmosphere, approved for such locations?
- Are motorized hand and hand/rider trucks so designed that the brakes are applied, and power to the drive motor shuts off when the operator releases his/her grip on the device that controls the travel?
- Are industrial trucks with internal combustion engine operated in buildings or enclosed areas, carefully checked to ensure such operations do not cause harmful concentration of dangerous gases or fumes?

SPRAYING OPERATIONS

- Is adequate ventilation assured before spray operations are started?
- Is mechanical ventilation provided when spraying operation is done in enclosed areas?
- When mechanical ventilation is provided during spraying operations, is it so arranged that it will not circulate the contaminated air?
- Is the spray area free of hot surfaces?
- Is the spray area at least 20 feet from flames, sparks, operating electrical motors and other ignition sources?
- Are portable lamps used to illuminate spray areas suitable for use in a hazardous location?
- Is approved respiratory equipment provided and used when appropriate during spraying operations?
- Do solvents used for cleaning have a flash point of 100E F or more?
- Are fire control sprinkler heads kept clean?

- Are "NO SMOKING" signs posted in spray areas, paint rooms, paint booths, and paint storage areas?
- Is the spray area kept clean of combustible residue?
- Are spray booths constructed of metal, masonry, or other substantial noncombustible material?
- Are spray booth floors and baffles noncombustible and easily cleaned?
- Is infrared drying apparatus kept out of the spray area during spraying operations?
- Is the spray booth completely ventilated before using the drying apparatus?
- Is the electric drying apparatus properly grounded?
- Are lighting fixtures for spray booths located outside of the booth and the interior lighted through sealed clear panels?
- Are the electric motors for exhaust fans placed outside booths or ducts?
- Are belts and pulleys inside the booth fully enclosed?
- Do ducts have access doors to allow cleaning?
- Do all drying spaces have adequate ventilation?

ENTERING CONFINED SPACES

- Are confined spaces thoroughly emptied of any corrosive or hazardous substances, such as acids or caustics, before entry?
- Before entry, are all lines to a confined space, containing inert, toxic, flammable, or corrosive materials valved off and blanked or disconnected and separated?
- Is it required that all impellers, agitators, or other moving equipment inside confined spaces be locked-out if they present a hazard?
- Is either natural or mechanical ventilation provided prior to confined space entry?
- Before entry, are appropriate atmospheric tests performed to check for oxygen deficiency, toxic substance and explosive concentrations in the confined space before entry?
- Is adequate illumination provided for the work to be performed in the confined space?
- Is the atmosphere inside the confined space frequently tested or continuously monitor during conduct of work?

- Is there an assigned safety standby employee outside of the confined space, whose sole responsibility is to watch the work in progress, sound an alarm if necessary, and render assistance?
- Is the standby employee or other employees prohibited from entering the confined space without lifelines and respiratory equipment if there is any questions as to the cause of an emergency?
- In addition to the standby employee, is there at least one other trained rescuer in the vicinity?
- Are all rescuers appropriately trained and using approved, recently inspected equipment?
- Does all rescue equipment allow for lifting employees vertically from a top opening?
- Are there trained personnel in First Aid and CPR immediately available?
- Is there an effective communication system in place whenever respiratory equipment is used and the employee in the confined space is out of sight of the standby person?
- Is approved respiratory equipment required if the atmosphere inside the confined space cannot be made acceptable?
- Is all portable electrical equipment used inside confined spaces either grounded and insulated, or equipped with ground fault protection?
- Before gas welding or burning is started in a confined space, are hoses checked for leaks, compressed gas bottles forbidden inside of the confined space, torches lighted only outside of the confined area and the confined area tested for an explosive atmosphere each time before a lighted torch is to be taken into the confined space?
- If employees will be using oxygen-consuming equipment such as salamanders, torches, furnaces, in a confined space, is sufficient air provided to assure combustion without reducing the oxygen concentration of the atmosphere below 19.5 percent by volume?
- Whenever combustion-type equipment is used in confined space, are provisions made to ensure the exhaust gases are vented outside of the enclosure?
- Is each confined space checked for decaying vegetation or animal matter, which may produce methane?
- Is the confined space checked for possible industrial waste, which could contain toxic properties?

- If the confined space is below the ground and near areas where motor vehicles will be operating, is it possible for vehicle exhaust or carbon monoxide to enter the space?

ENVIRONMENTAL CONTROLS

- Are all work areas properly illuminated?
- Are employees instructed in proper first aid and other emergency procedures?
- Are hazardous substances identified which may cause harm by inhalation, ingestion, skin absorption or contact?
- Are employees aware of the hazards involved with the various chemicals they may be exposed to in their work environment, such as ammonia, chlorine, epoxies, and caustics?
- Is employee exposure to chemicals in the workplace kept within acceptable levels?
- Can a less harmful method or product be used?
- Is the work area's ventilation system appropriate for the work being performed?
- Are spray painting operations done in spray rooms or booths equipped with an appropriate exhaust system?
- Is employee exposure to welding fumes controlled by ventilation, use of respirators, exposure time, or other means?
- Are welders and other workers nearby provided with flash shields during welding operations?
- If forklifts and other vehicles are used in buildings or other enclosed areas, are the carbon monoxide levels kept below maximum acceptable concentration?
- Has there been a determination that noise levels in the facilities are within acceptable levels?
- Are steps being taken to use engineering controls to reduce excessive noise levels?
- Are proper precautions being taken when handling asbestos and other fibrous materials?
- Are caution labels and signs used to warn of asbestos?
- Are wet methods used, when practicable, to prevent the emission of airborne asbestos fibers, silica dust and similar hazardous materials?
- Is vacuuming with appropriate equipment used whenever possible rather than blowing or sweeping dust?
- Are grinders, saws, and other machines that produce respirable dusts vented to an industrial collector or central exhaust system?
- Are all local exhaust ventilation systems designed and operating properly such as airflow and volume necessary for the application? Are the ducts free of obstructions or the belts slipping?
- Is personal protective equipment provided, used and maintained wherever required?
- Are there written standard operating procedures for the selection and use of respirators where needed?
- Are restrooms and washrooms kept clean and sanitary?
- Is all water provided for drinking, washing, and cooking potable?
- Are all outlets for water not suitable for drinking clearly identified?
- Are employees' physical capacities assessed before being assigned to jobs requiring heavy work?
- Are employees instructed in the proper manner of lifting heavy objects?
- Where heat is a problem, have all fixed work areas been provided with spot cooling or air conditioning?
- Are employees screened before assignment to areas of high heat to determine if their health condition might make them more susceptible to having an adverse reaction?
- Are employees working on streets and roadways where they are exposed to the hazards of traffic, required to wear bright colored (traffic orange) warning vest?
- Are exhaust stacks and air intakes located that contaminated air will not be recirculated within a building or other enclosed area?
- Is equipment producing ultra-violet radiation properly shielded?

FLAMMABLE & COMBUSTIBLE MATERIALS

- Are combustible scrap, debris and waste materials (i.e. oily rags) stored in covered metal receptacles and removed from the worksite promptly?
- Is proper storage practiced to minimize the risk of fire including spontaneous combustion?
- Are approved containers and tanks used for the storage and handling of flammable and combustible liquids?

- Are all connections on drums and combustible liquid piping, vapor and liquid tight?
- Are all flammable liquids kept in closed containers when not in use (e.g. parts cleaning tanks, pans)?
- Are bulk drums of flammable liquids grounded and bonded to containers during dispensing?
- Do storage rooms for flammable and combustible liquids have explosion-proof lights?
- Do storage rooms for flammable and combustible liquids have mechanical or gravity ventilation?
- Is liquefied petroleum gas stored, handled, and used in accordance with safe practices and standards?
- Are liquefied petroleum storage tanks guarded to prevent damage from vehicles?
- Are all solvent wastes and flammable liquids kept in fire-resistant covered containers until they are removed from the worksite?
- Is vacuuming used whenever possible rather than blowing or sweeping combustible dust?
- Are fire separators placed between containers of combustibles or flammables, when stacked one upon another, to assure their support and stability?
- Are fuel gas cylinders and oxygen cylinders separated by distance, fire resistant barriers or other means while in storage?
- Are fire extinguishers selected and provided for the types of materials in areas where they are to be used?
- Class A: Ordinary combustible material fires.
- Class B: Flammable liquid, gas or grease fires.
- Class C: Energized-electrical equipment fires.
- If a Halon 1301 fire extinguisher is used, can employees evacuate within the specified time for that extinguisher?
- Are appropriate fire extinguishers mounted within 75 feet of outside areas containing flammable liquids, and within 10 feet of any inside storage area for such materials?
- Is the transfer/withdrawal of flammable or combustible liquids performed by trained personnel?
- Are fire extinguishers mounted so that employees do not have to travel more than 75 feet for a class "A" fire or 50 feet for a class "B" fire?
- Are employees trained in the use of fire extinguishers?
- 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?
- Is a record maintained of required monthly checks of extinguishers?
- Where sprinkler systems are permanently installed, are the nozzle heads directed or arranged so that water will not be sprayed into operating electrical switchboards and equipment?
- Are "NO SMOKING" signs posted where appropriate in areas where flammable or combustible materials are used or stored?
- Are "NO SMOKING" signs posted on liquefied petroleum gas tanks?
- Are "NO SMOKING" rules enforced in areas involving storage and use of flammable materials?
- Are safety cans used for dispensing flammable or combustible liquids at a point of use?
- Are all spills of flammable or combustible liquids cleaned up promptly?
- Are storage tanks adequately vented to prevent the development of excessive vacuum or pressure as a result of filling, emptying, or atmosphere temperature changes?
- Are storage tanks equipped with emergency venting that will relieve excessive internal pressure caused by fire exposure?
- Are spare portable or butane tanks, which are used by industrial trucks stored in accord with regulations?

FIRE PROTECTION

- Do you have a fire prevention plan?
- Does your plan describe the type of fire protection equipment and/or systems?
- Have you established practices and procedures to control potential fire hazards and ignition sources?
- Are employees aware of the fire hazards of the material and processes to which they are exposed?
- Is your local fire department well acquainted with your facilities, location and specific hazards?
- If you have a fire alarm system, is it tested at least annually?

- If you have a fire alarm system, is it certified as required?
- If you have interior standpipes and valves, are they inspected regularly?
- If you have outside private fire hydrants, are they flushed at least once a year and on a routine preventive maintenance schedule?
- Are fire doors and shutters in good operating condition?
- Are fire doors and shutters unobstructed and protected against obstructions, including their counterweights?
- Are fire door and shutter fusible links in place?
- Are automatic sprinkler system water control valves, air and water pressures checked weekly/periodically as required?
- Is maintenance of automatic sprinkler system assigned to responsible persons or to a sprinkler contractor?
- Are sprinkler heads protected by metal guards, when exposed to physical damage?
- Is proper clearance maintained below sprinkler heads?
- Are portable fire extinguishers provided in adequate number and type?
- Are fire extinguishers mounted in readily accessible locations?
- Are fire extinguishers recharged regularly and noted on the inspection tag?
- Are employees periodically instructed in the use of extinguishers and fire protection procedures?

HAZARDOUS CHEMICAL EXPOSURES

- Are employees trained in the safe handling practices of hazardous chemicals such as acids, caustics, and the like?
- Are employees aware of the potential hazards involving various chemicals stored or used in the workplace-- such as acids, bases, caustics, epoxies, and phenols?
- Is employee exposure to chemicals kept within acceptable levels?
- Are eye wash fountains and safety showers provided in areas where corrosive chemicals are handled?
- Are all containers, such as vats and storage tanks labeled as to their contents--e.g. "CAUSTICS"?
- Are all employees required to use personal protective clothing and equipment when handling chemicals (i.e. gloves, eye protection, and respirators)?
- Are flammable or toxic chemicals kept in closed containers when not in use?
- Are chemical piping systems clearly marked as to their content?
- Where corrosive liquids are frequently handled in open containers or drawn from storage vessels or pipelines, is adequate means readily available for neutralizing or disposing of spills or overflows properly and safely?
- Have standard operating procedures been established and are they being followed when cleaning up chemical spills?
- Where needed for emergency use, are respirators stored in a convenient, clean and sanitary location?
- Are respirators intended for emergency use adequate for the various uses for which they may be needed?
- Are employees prohibited from eating in areas where hazardous chemicals are present?
- Is personal protective equipment provided, used and maintained whenever necessary?
- Are there written standard operating procedures for the selection and use of respirators where needed?
- If you have a respirator protection program, are your employees instructed on the correct usage and limitations of the respirators?
- Are the respirators NIOSH approved for this particular application?
- Are they regularly inspected and cleaned sanitized and maintained?
- If hazardous substances are used in your processes, do you have a medical or biological monitoring system in operation?
- Are you familiar with the Threshold Limit Values or Permissible Exposure Limits of airborne contaminants and physical agents used in your workplace?
- Have control procedures been instituted for hazardous materials, where appropriate, such as respirators, ventilation systems, handling practices, and the like?
- Whenever possible, are hazardous substances handled in properly designed and exhausted booths or similar locations?
- Do you use general dilution or local exhaust ventilation systems to control dusts, vapors, gases, fumes, smoke, solvents or mists which may be generated in your workplace?

- Is ventilation equipment provided for removal of contaminants from such operations as production grinding, buffing, spray painting, and/or vapor decreasing, and is it operating properly?
- Do employees complain about dizziness, headaches, nausea, irritation, or other factors of discomfort when they use solvents or other chemicals?
- Is there a dermatitis problem--do employees complain about skin dryness, irritation, or sensitization?
- Have you considered the use of an industrial hygienist or environmental health specialist to evaluate your operation?
- If internal combustion engines are used, is carbon monoxide kept within acceptable levels?
- Is vacuuming used, rather than blowing or sweeping dusts whenever possible for clean up?
- Are materials, which give off toxic asphyxiant, suffocating or anesthetic fumes, stored in remote or isolated locations when not in use?

HAZARDOUS SUBSTANCES COMMUNICATION

- Is there a list of hazardous substances used in your workplace?
- Is there a written hazard communication program dealing with Material Safety Data Sheets (MSDS) labeling, and employee training?
- Who is responsible for MSDSs, container labeling, employee training?
- Is each container for a hazardous substance (i.e. vats, bottles, storage tanks,) labeled with product identity and a hazard warning (communication of the specific health hazards and physical hazards)?
- Is there a Material Safety Data Sheet readily available for each hazardous substance used?
- How will you inform other employers whose employees share the same work area where the hazardous substances are used?
- Is there an employee training program for hazardous substances?
- Does this program include:
 - An explanation of what an MSDS is and how to use and obtain one?
 - MSDS contents for each hazardous substance or class of substances?
 - Explanation of "Right to Know"?
 - Identification of where employees can see the employer's written hazard communication program and where hazardous substances are present in their work area?
 - The physical and health hazards of substances in the work area, how to detect their presence, and specific protective measures to be used?
 - Details of the hazard communication program, including how to use the labeling system and MSDSs?
 - How employees will be informed of hazards of non-routine tasks, and hazards of unlabeled pipes?

ELECTRICAL

- Are your workplace electricians familiar with the Cal/OSHA Electrical Safety Orders?
- Do you specify compliance with Cal/OSHA for all contract electrical work?
- Are all employees required to report as soon as practicable any obvious hazard to life or property observed in connection with electrical equipment or lines?
- Are employees instructed to make preliminary inspections and/or appropriate tests to determine what conditions exist before starting work on electrical equipment or lines?
- When electrical equipment or lines are to be serviced, maintained or adjusted, are necessary switches opened, locked-out and tagged whenever possible?
- Are portable electrical tools and equipment grounded or of the double insulated type?
- Are electrical appliances such as vacuum cleaners, polishers, vending machines grounded?
- Do extension cords being used have a grounding conductor?
- Are multiple plug adapters prohibited?
- Are ground-fault circuit interrupters installed on each temporary 15 or 20 ampere, 120 volt AC circuit at locations where construction, demolition, modifications, alterations or excavations are being performed?
- Are all temporary circuits protected by suitable disconnecting switches or plug connectors at the junction with permanent wiring?
- Is exposed wiring and cords with frayed or deteriorated insulation repaired or replaced promptly?

- Are flexible cords and cables free of splices or taps?
- Are clamps or other securing means provided on flexible cords or cables at plugs, receptacles, tools, and equipment and is the cord jacket securely held in place?
- Are all cord, cable and raceway connections intact and secure?
- In wet or damp locations, are electrical tools and equipment appropriate for the use or location or otherwise protected?
- Is the location of electrical power lines and cables (overhead, underground, underfloor, other side of walls) determined before digging, drilling or similar work is begun?
- Are metal measuring tapes, ropes, handlines or similar devices with metallic thread woven into the fabric prohibited where they could come in contact with energized parts of equipment or circuit conductors?
- Is the use of metal ladders prohibited in area where the ladder or the person using the ladder could come in contact with energized parts of equipment, fixtures or circuit conductors?
- Are all disconnecting switches and circuit breakers labeled to indicate their use or equipment served?
- Are disconnecting means always opened before fuses are replaced?
- Do all interior wiring systems include provisions for grounding metal parts of electrical raceways, equipment and enclosures?
- Are all electrical raceways and enclosures securely fastened in place?
- Are all energized parts of electrical circuits and equipment guarded against accidental contact by approved cabinets or enclosures?
- Is sufficient access and working space provided and maintained about all electrical equipment to permit ready and safe operations and maintenance?
- Are all unused openings (including conduit knockouts) in electrical enclosures and fittings closed with appropriate covers, plugs or plates?
- Are electrical enclosures such as switches, receptacles, junction boxes, etc., provided with tight-fitting covers or plates?
- Are disconnecting switches for electrical motors in excess of two horsepower, capable of opening the circuit when the motor is in a stalled condition, without exploding? (Switches must be horsepower rated equal to or in excess of the motor hp rating).
- Is low voltage protection provided in the control device of motors driving machines or equipment, which could cause probably injury from inadvertent starting?
- Is each motor disconnecting switch or circuit breaker located within sight of the motor control device?
- Is each motor located within sight of its controller or the controller disconnecting means capable of being locked in the open position or is a separate disconnecting means installed in the circuit within sight of the motor?
- Is the controller for each motor in excess of two horsepower, rated in horsepower equal to or in excess of the rating of the motor is serves?
- Are employees who regularly work on or around energized electrical equipment or lines instructed in the cardiopulmonary resuscitation (CPR) methods?
- Are employees prohibited from working alone on energized lines or equipment over 600 volts?

NOISE

- Are there areas in the workplace where continuous noise levels exceed 85 dBA? (To determine maximum allowable levels for intermittent or impact noise, see Title 8, Section 5097.)
- Are noise levels being measured using a sound level meter or an octave band analyzer and records being kept?
- Have you tried isolating noisy machinery from the rest of your operation?
- Have engineering controls been used to reduce excessive noise levels?
- Where engineering controls are determined not feasible, are administrative controls (i.e. worker rotation) being used to minimize individual employee exposure to noise?
- Is there an ongoing preventive health program to educate employees in safe levels of noise and exposure, effects of noise on their health, and use of personal protection?
- Is the training repeated annually for employees exposed to continuous noise above 85 dBA?
- Have work areas where noise levels make voice communication between employees difficult been identified and posted?

- Is approved hearing protective equipment (noise attenuating devices) available to every employee working in areas where continuous noise levels exceed 85 dBA?
- If you use ear protectors, are employees properly fitted and instructed in their use and care?
- Are employees exposed to continuous noise above 85 dBA given periodic audiometric testing to ensure that you have an effective hearing protection system?

FUELING

- Is it prohibited to fuel an internal combustion engine with a flammable liquid while the engine is running?
- Are fueling operations done in such a manner that likelihood of spillage will be minimal?
- When spillage occurs during fueling operations, is the spilled fuel cleaned up completely, evaporated, or other measures taken to control vapors before restarting the engine?
- Are fuel tank caps replaced and secured before starting the engine?
- In fueling operations is there always metal contact between the container and fuel tank?
- Are fueling hoses of a type designed to handle the specific type of fuel?
- Is it prohibited to handle or transfer gasoline in open containers?
- Are open lights, open flames, or sparking or arcing equipment prohibited near fueling or transfer of fuel operations?
- Is smoking prohibited in the vicinity of fueling operations?
- Are fueling operations prohibited in building or other enclosed areas that are not specifically ventilated for this purpose?
- Where fueling or transfer of fuel is done through a gravity flow system, are the nozzles of the self-closing type?

IDENTIFICATION OF PIPING SYSTEMS

- When nonpotable water is piped through a facility, are outlets or taps posted to alert employees that it is unsafe and not to be used for drinking, washing or other personal use?
- When hazardous substances are transported through above ground piping, is each pipeline identified at points where confusion could introduce hazards to employees?
- When pipelines are identified by color painting, are all visible parts of the line so identified?
- When pipelines are identified by color painted bands or tapes, are the bands or tapes located at reasonable intervals and at each outlet, valve or connection?
- When pipelines are identified by color, is the color code posted at all locations where confusion could introduce hazards to employees?
- When the contents of pipelines are identified by name or name abbreviation, is the information readily visible on the pipe near each valve or outlet?
- When pipelines carrying hazardous substances are identified by tags, are the tags constructed of durable materials, the message carried clearly and permanently distinguishable and are tags installed at each valve or outlet?
- When pipelines are heated by electricity, steam or other external source, are suitable warning signs or tags placed at unions, valves, or other serviceable parts of the system?

MATERIAL HANDLING

- Is there safe clearance for equipment through aisles and doorways?
- Are aiseways designated, permanently marked, and kept clear to allow unhindered passage?
- Are motorized vehicles and mechanized equipment inspected daily or prior to use?
- Are vehicles shut off and brakes set prior to loading or unloading?
- Are containers or combustibles or flammables, when stacked while being moved, always separated by dunnage sufficient to provide stability?
- Are dock boards (bridge plates) used when loading or unloading operations are taking place between vehicles and docks?
- Are trucks and trailers secured from movement during loading and unloading operations?

- Are dock plates and loading ramps constructed and maintained with sufficient strength to support imposed loading?
- Are hand trucks maintained in safe operating condition?
- Are chutes equipped with sideboards of sufficient height to prevent the materials being handled from falling off?
- Are chutes and gravity roller sections firmly placed or secured to prevent displacement?
- At the delivery end of rollers or chutes, are provisions made to brake the movement of the handled materials.

- Are pallets usually inspected before being loaded or moved?
- Are hooks with safety latches or other arrangements used when hoisting materials so that slings or load attachments won't accidentally slip off the hoist hooks?
- Are securing chains, ropes, chockers or slings adequate for the job to be performed?
- When hoisting material or equipment, are provisions made to assure no one will be passing under the suspended loads?
- Are Material Safety Data Sheets available to employees handling hazardous substances?

TRANSPORTING EMPLOYEES & MATERIALS

- Do employees who operate vehicles on public thoroughfares have valid operator's licenses?
- When seven or more employees are regularly transported in a van, bus or truck, is the operator's license appropriate for the class of vehicle being driven?
- Is each van, bus or truck used regularly to transport employees, equipped with an adequate number of seats?

- When employees are transported by truck, are provision provided to prevent their falling from the vehicle?
- Are vehicles used to transport employees, equipped with lamps, brakes, horns, mirrors, windshields and turn signals in good repair?
- Are transport vehicles provided with handrails, steps, stirrups or similar devices, so placed and arranged that employees can safely mount or dismount?
- Are employee transport vehicles equipped at all times with at least two reflective type flares?
- Is a full charged fire extinguisher, in good condition, with at least 4 B:C rating maintained in each employee transport vehicle?
- When cutting tools with sharp edges are carried in passenger compartments of employee transport vehicles, are they placed in closed boxes or containers which are secured in place?
- Are employees prohibited from riding on top of any load, which can shift, topple, or otherwise become unstable?

CONTROL OF HARMFUL SUBSTANCES BY VENTILATION

- Is the volume and velocity of air in each exhaust system sufficient to gather the dusts, fumes, mists, vapors or gases to be controlled, and to convey them to a suitable point of disposal?
- Are exhaust inlets, ducts and plenums designed, constructed, and supported to prevent collapse or failure of any part of the system?
- Are clean-out ports or doors provided at intervals not to exceed 12 feet in all horizontal runs of exhaust ducts?

- Where two or more different type of operations are being controlled through the same exhaust system, will the combination of substances being controlled, constitute a fire, explosion or chemical reaction hazard in the duct?
- Is adequate makeup air provided to areas where exhaust systems are operating?
- Is the intake for makeup air located so that only clean, fresh air, which is free of contaminates, will enter the work environment?
- Where two or more ventilation systems are serving a work area, is their operation such that one will not offset the functions of the other?

SANITIZING EQUIPMENT & CLOTHING

- Is personal protective clothing or equipment, that employees are required to wear or use, of a type capable of being easily cleaned and disinfected?
- Are employees prohibited from interchanging personal protective clothing or equipment, unless it has been properly cleaned?
- Are machines and equipment, which processes, handle or apply materials that could be injurious to employees, cleaned and/or decontaminated before being overhauled or placed in storage?
- Are employees prohibited from smoking or eating in any area where contaminants are present that could be injurious if ingested?
- When employees are required to change from street clothing into protective clothing, is a clean changeroom with separate storage facility for street and protective clothing provided?
- Are employees required to shower and wash their hair as soon as possible after a known contact has occurred with a carcinogen?
- When equipment, materials, or other items are taken into or removed from a carcinogen regulated area, is it done in a manner that will not contaminate non-regulated areas or the external environment?

TIRE INFLATION

- Where tires are mounted and/or inflated on drop center wheels is a safe practice procedure posted and enforced?
- Where tires are mounted and/or inflated on wheels with split rims and/or retainer rings is a safe practice procedure posted and enforced?
- Does each tire inflation hose have a clip-on chuck with at least 24 inches of hose between the chuck and an in-line hand valve and gauge?
- Does the tire inflation control valve automatically shut off the airflow when the valve is released?
- Is a tire restraining device such as a cage, rack or other effective means used while inflating tires mounted on split rims, or rims using retainer rings?
- Are employees strictly forbidden from taking a position directly over or in front of a tire while it's being inflated?

EMERGENCY ACTION PLAN

- Are you required to have an emergency action plan?
- Does the emergency action plan comply with requirements of T8CCR 3220(a)?
- Have emergency escape procedures and routes been developed and communicated to all employees?
- Do employees, who remain to operate critical plant operations before they evacuate, know the proper procedures?
- Is the employee alarm system that provides a warning for emergency action recognizable and perceptible above ambient conditions?
- Are alarm systems properly maintained and tested regularly?
- Is the emergency action plan reviewed and revised periodically?
- Do employees know their responsibilities:
- For reporting emergencies?
- During an emergency?
- For conducting rescue and medical duties?

INFECTION CONTROL

- Are employees potentially exposed to infectious agents in body fluids?
- Have occasions of potential occupational exposure been identified and documented?
- Has a training and information program been provided for employees exposed to or potentially exposed to blood and/or body fluids?
- Have infection control procedures been instituted where appropriate, such as ventilation, universal precautions, workplace practices, and personal protective equipment?
- Are employees aware of specific workplace practices to follow when appropriate? (Hand washing, handling sharp instruments, handling of laundry, disposal of contaminated materials, reusable equipment.)

- Is personal protective equipment provided to employees, and in all appropriate locations?
- Is the necessary equipment (i.e. mouthpieces, resuscitation bags, and other ventilation devices) provided for administering mouth-to-mouth resuscitation on potentially infected patients?
- Are facilities/equipment to comply with workplace practices available, such as hand-washing sinks, biohazard tags and labels, needle containers, detergents/disinfectants to clean up spills?
- Are all equipment and environmental and working surfaces cleaned and disinfected after contact with blood or potentially infectious materials?
- Is infectious waste placed in closable, leak proof containers, bags or puncture-resistant holders with proper labels?
- Has medical surveillance including HBV evaluation, antibody testing and vaccination been made available to potentially exposed employees?
- Training on universal precautions?
- Training on personal protective equipment?
- Training on workplace practices, which should include blood drawing, room cleaning, laundry handling, clean up of blood spills?
- Training on needlestick exposure/management?
- Hepatitis B vaccinations?

ERGONOMICS

- Can the work be performed without eyestrain or glare to the employees?
- Does the task require prolonged raising of the arms?
- Do the neck and shoulders have to be stooped to view the task?
- Are there pressure points on any parts of the body (wrists, forearms, back of thighs)?
- Can the work be done using the larger muscles of the body?
- Can the work be done without twisting or overly bending the lower back?
- Are there sufficient rest breaks, in addition to the regular rest breaks, to relieve stress from repetitive-motion tasks?
- Are tools, instruments and machinery shaped, positioned and handled so that tasks can be performed comfortably?
- Are all pieces of furniture adjusted, positioned and arranged to minimize strain on all parts of the body?

VENTILATION FOR INDOOR AIR QUALITY

- Does your HVAC system provide at least the quantity of outdoor air required by the State Building Standards Code, Title 24, Part 2 at the time the building was constructed?
- Is the HVAC system inspected at least annually, and problems corrected?
- Are inspection records retained for at least 5 years?

CRANE CHECKLIST

- Are the cranes visually inspected for defective components prior to the beginning of any work shift?
- Are all electrically operated cranes effectively grounded?
- Is a crane preventive maintenance program established?
- Is the load chart clearly visible to the operator?
- Are operating controls clearly identified?
- Is a fire extinguisher provided at the operator's station?
- Is the rated capacity visibly marked on each crane?
- Is an audible warning device mounted on each crane?
- Is sufficient illumination provided for the operator to perform the work safely?
- Are cranes of such design, that the boom could fall over backward, equipped with boomstops?
- Does each crane have a certificate indicating that required testing and examinations have been performed?
- Are crane inspection and maintenance records maintained and available for inspection?



Cal/OSHA Accident Reporting Guide for Employers

CCR, Title 8, § 342(a)

I. Cal/OSHA District Reporting Offices: only Southern California local offices listed here.

A. Phone in all notifications 24 hrs/7 days a week. If after hours, leave a message with all of the reporting information outlined in III.

Region 3	<i>Santa Ana District Office</i> 2000 E McFadden AVE, Ste 122 Santa Ana, CA 92705	Notification Phone #: 714-558-4451
	<i>San Bernardino District Office</i> 464 W 4 th Street, Ste 332 San Bernardino, CA 92401	Notification Phone #: 909-383-4321
	<i>Long Beach District Office</i> 3939 Atlantic Ave, Ste 212 Long Beach, CA 90807	Notification Phone #: 562-506-0810
	<i>San Diego District Office</i> 7575 Metropolitan Dr, Ste 207 San Diego, CA 92108	Notification Phone #: 619-767-2280
Region 4	<i>Los Angeles District Office</i> 320 West 4 th Street, Rm 670 Los Angeles, CA 90013	Notification Phone #: 213-576-7451
	<i>West Covina District Office</i> 1906 W Garvey AVE S, Ste 200 West Covina, CA 91790	Notification Phone #: 626-472-0046
	<i>Van Nuys District Office</i> 6150 Van Nuys, BLVD, Ste 405 Van Nuys, CA 991401	Notification Phone #: 818-901-5403
	<i>Bakersfield District Office</i> 7718 Meany Ave, Bakersfield, CA 93308	Notification Phone #: 818-901-5403

II. Overview: Accident Events Triggering Notification (*phone call*) to Cal/OSHA

A. Notification within 8 hours to the closest district office is required whenever the following workplace accidents or illnesses occur

- ① Fatality
- ② Serious Injury or Illness
- ③ Serious Exposure
- ④ Catastrophe
- ⑤ Pesticide-related poisoning

B. Other Recommendations When to Notify the District Office: *Public agencies automatically report!*

1. Non-work related incidents, e.g., a customer/vendor sustains a heart attack, or a non-employee individual sustains a serious injury/fatality as the result of a penal code violation on the premises.
 - a) **Recommendation:** Notify Cal/OSHA that the incident was non-work related and 911 was called
2. Non-work related incidents, e.g., an employee sustains a diabetic seizure or other medical condition, 911 is dialed and emergency responders arrive.
 - b) **Recommendation:** Notify Cal/OSHA and explain the details of the non-occupational incident.

C. Definitions:

1. **Fatality** ▶ The death of any employee in the workplace during the course of duties. **Recommended to notify even for fatalities involving contactors, temporary, or any other workforce onsite.*



Cal/OSHA Accident Reporting Guide for Employers

CCR, Title 8, § 342(a)

2. **Serious Injury or Illness**▶ Any injury or illness to one or more employees, occurring in a place of employment or in connection with any employment, which requires inpatient hospitalization for a period in excess of 24 hours for other than medical observation, or in which an employee suffers the loss of any member of the body, or suffers any serious degree of physical disfigurement.
3. **Serious Exposure**▶ any exposure of a substance, regardless of state of matter, that exceeds an established permissible exposure limit.
4. **Catastrophe**▶ a "catastrophe" refers to the inpatient hospitalization (regardless of duration) of 3 or more employees for examination or treatment resulting from a workplace injury or illness.
5. **Pesticide-related poisoning**▶ any workplace exposure to Insecticide, Fungicide, and/or Rodenticide as federally defined, during the course of employment, that exceeds an established permissible exposure limit.
6. **Immediately**▶ means as soon as practically possible, but no longer than 8 hours after the employer knows, or with diligent inquiry would have known of the accident event. If the employer can demonstrate that exigent circumstances exist, the time frame for the report may be made no longer than 24 hours after the incident.

III. Reportable Information that Cal/OSHA Will Ask You

- A. Personnel will gather the following information when you call the district office
 1. Time and date of accident event
 2. Employer's name, address and telephone number
 3. Name and job title, or badge number, of the person reporting the accident
 4. Address of accident event site
 5. Name of person to contact at accident event site
 6. Name and address of injured employee(s)
 7. Nature of injuries
 8. Location where injured employee(s) was/were taken for medical treatment
 9. List and identity of other law enforcement agencies present at the accident event site
 10. Description of accident event and whether the accident scene has been altered
- B. When Notifying Afterhours; leave a message with the above details

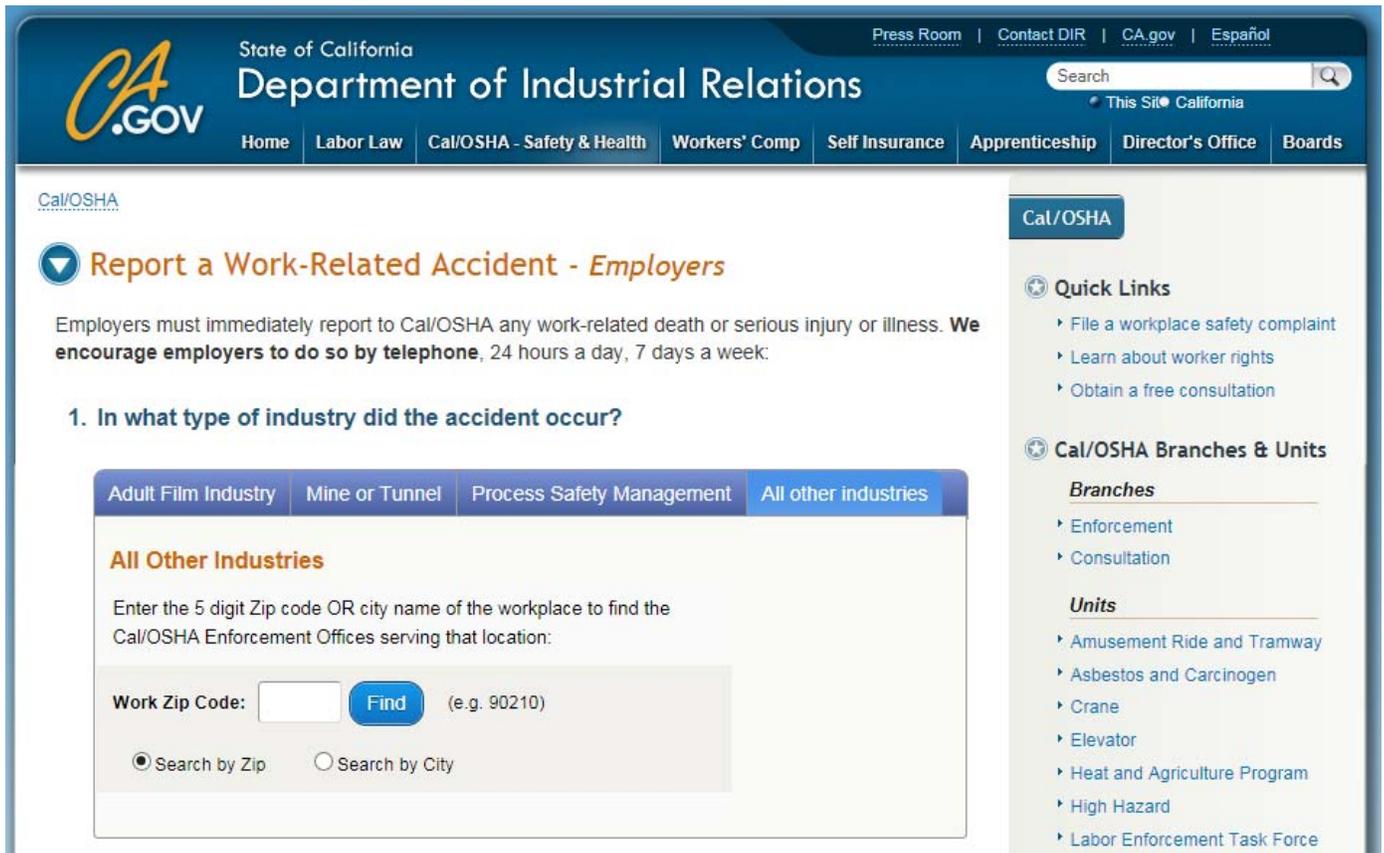
IV. Failure-to-Report Violations: Penalty reductions may be granted where the employer reported the incident, but missed the 8-hour notification deadline.

- A. Initial Occurrence = **\$5,000 Mandatory Minimum Fine**
 1. Employers who fail to report the occurrence of a fatality or a serious injury or illness to the nearest Cal/OSHA District Office as soon as practically possible, but no longer than 8 hours after the employer knows or with diligent inquiry would have known of the occurrence of the accident event, shall be cited for a failure-to-report violation of CCR, Title 8, § 342(a).

V. Mandatory Accident Investigations Conducted by Cal/OSHA

- A. All work related accidents resulting in the 5 above noted injuries and illnesses shall be investigated.
1. The Division may investigate the causes of any other type of accident or occupational illness.

☞ Always call your BBSI representative for guidance **BEFORE** notifying Cal/OSHA. If not practical due to time period, do not delay and comply with the 8 hour reporting requirement.



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Department of Industrial Relations

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Cal/OSHA

Report a Work-Related Accident - Employers

Employers must immediately report to Cal/OSHA any work-related death or serious injury or illness. **We encourage employers to do so by telephone, 24 hours a day, 7 days a week:**

1. In what type of industry did the accident occur?

Adult Film Industry | Mine or Tunnel | Process Safety Management | All other industries

All Other Industries

Enter the 5 digit Zip code OR city name of the workplace to find the Cal/OSHA Enforcement Offices serving that location:

Work Zip Code: (e.g. 90210)

Search by Zip Search by City

Cal/OSHA

Quick Links

- File a workplace safety complaint
- Learn about worker rights
- Obtain a free consultation

Cal/OSHA Branches & Units

Branches

- Enforcement
- Consultation

Units

- Amusement Ride and Tramway
- Asbestos and Carcinogen
- Crane
- Elevator
- Heat and Agriculture Program
- High Hazard
- Labor Enforcement Task Force

Report a Workplace Accident as Required by Law

Employer and responding fire and police agencies must immediately report any accident resulting in a serious injury or illness, or death. "Serious injury or illness" is defined in subsection (h) of Title 8 regulations, [section 330](#).

- See [instructions for employers to report an accident](#).
- See [instructions for responding fire and police agencies to report an accident](#).

<http://www.dir.ca.gov/dosh/report-accident-or-injury.html>



Cal/OSHA 300 Logs Quick Reference Guide

The California Occupational Safety & Health Administration (Cal/OSHA) requires employers to post, on an annual basis, accident data from the previous year, on **Form 300A- Annual Summary of Work-Related Injuries & Illnesses, February 1st through April 30th**. This form summarizes information from the Cal/OSHA Log Form 300, which lists specific incidents per employee and related lost time.

- ❶ **RECORDING CASES-** Upon receiving notice of a recordable case, record the information on Form 300 & 301 (or 301 equivalent- Form 5020 complies) within 7 calendar days upon notice of incident.
- ❷ **RECORDABLES-** If you had recordable injuries & illnesses, you will need to complete the Form 300 and then enter the information accordingly onto the **Form 300A Annual Summary**.
 - ↳ **Lost Time & Restricted Duty:** You will need to keep track, and tally, these days per case.
 - ↳ If utilizing the “Excel Format”, each form is located at the bottom tab selection. When filling out Form 300 in excel, the appropriate data shall populate the 300A Summary (2nd tab).
 - ↳ Verify your Form 300 Log for accuracy and that the correct data has transferred to the 300A Summary. If not, you can manually input the information in both Excel & the PDF format.
- ❸ **NO RECORDABLES-** If you had no recordable incidents for the previous year you will still need to complete and post the Form **300A** Summary indicating zeros.
- ❹ **TOTAL HOURS WORKED-** Enter the total hours worked by all employees on the 300A Log. Add up the the hours by calculating your totals from your payroll runs, to get your total hours.
- ❺ **REVIEW-** Once reviewed, PRINT Form **300A** and the Company Executive/Representative shall sign.
- ❻ **POST-** Post Form **300A** in plain view, usually at the same area where you post employee notices and communications to employees. ▶ **DO NOT post the 300 -or- 301 log/5020 report.**
- ❼ **RECORDKEEPING-** Keep the Logs filed for a period of not less than (5) years following the reporting year.
- ❽ **FORM 301 -or- EQUIVALENT INJURY & ILLNESS INCIDENT REPORT-** Form 301 must also be filled out in its entirety -or- retain the completed 5020 State FORM, Employer’s Report of Occupational Injury or Illness with the logs to comply as the “Incident Report”. Your BBSI Safety & Risk Consultant will be able to forward you the completed FORM 5020 for the recordable case for your files.
- ❾ **RESPONSIBILITY-** It is the employers responsibility to ensure that copies of these documents are maintained at your worksite and available for review in the event of a regulatory inspection. **BBSI does not complete your Logs and does not retain copies of your logs or company Health & Safety records.*
- ❿ **BEST PRACTICE-** Fill-out your Logs immediately as injuries occur. (**Within 7 calendar days upon notice*)

Please feel free to contact your BBSI Consultant and we will help you through this process.

Lee Lottier

BBSI, Safety & Risk Consultant

▶ Attached are the Excel & PDF formats of the 300/300A/301 Logs.



Article 2. Employer Records of Occupational Injury or Illness

§ 14300.2. Partial Exemption for Establishments in Certain Industries.

(a) Basic requirement.

(1) If you are a public or private sector employer and all of your establishments are classified in the *retail, service, finance, insurance* or *real estate* industries listed in Table 1 in Appendix A of this section, *you do not need to keep Cal/OSHA injury and illness records* required by Article 2, *unless* asked by the Bureau of Labor Statistics to do so. However, all employers must report to Cal/OSHA any workplace incident that results in a serious injury or illness, or death, as required.

- Those establishments in the retail, service, finance, insurance and real estate industries not specifically listed in Table 1 in Appendix A are not eligible for the partial industry classification exemption.
- The partial industry classification exemption applies to individual establishments. If a company has several establishments engaged in different classes of activities, some of the company's establishments may be required to keep records, while others may be exempt.

☞ If unsure, please contact your BBSI Safety & Risk Consultant

APPENDIX A-Table 1

SIC CODE	Industry Description	SIC CODE	Industry Description
525	Hardware Stores	726	Funeral Service and Crematories
542	Meat and Fish Markets	729	Miscellaneous Personal Services
544	Candy, Nut, and Confectionery Stores	731	Advertising Services
545	Dairy Products Stores	732	Credit Reporting and Collection Services
546	Retail Bakeries	733	Mailing, Reproduction and Stenographic Services
549	Miscellaneous Food stores	737	Computer and Data Processing Services
551	New and Used car Dealers	738	Miscellaneous Business Services
552	Used Car Dealers	764	Reupholstery and Furniture Repair
554	Gasoline Service Stations	782	Motion Picture Distribution and Allied Services
557	Motorcycle Dealers	783	Motion Pictures Theaters
56	Apparel and Accessory Stores	784	Video Tape Rental
573	Radio, Television, and Computer Stores	791	Dance Studios, Schools, and Halls
58	Eating and Drinking Places	792	Producers, Orchestras, Entertainers
591	Drug Stores and Proprietary Stores	793	Bowling Centers
592	Liquor Stores	801	Offices and Clinics of Medical Doctors
594	Miscellaneous Shopping Goods Stores	802	Offices and Clinics of Dentists
599	Retail Stores, Not Elsewhere Classified	803	Offices of Osteopathic
60	Depository Institutions (banks and savings institutions)	804	Offices of Other Health Practitioners
61	Non-depository	807	Medical and Dental Laboratories
62	Security and Commodity Brokers	809	Health and Allied Services, Not Elsewhere Classified
63	Insurance Carriers	81	Legal Services
64	Insurance Agents, Brokers and Services	82	Educational Services (schools, colleges, universities and libraries)
653	Real Estate Agents and Managers	832	Individual and Family Services
654	Title Abstract Offices	835	Child Day Care Services
67	Holding and Other Investment Offices	839	Social Services, Not Elsewhere Classified
722	Photographic Studios, Portrait	841	Museums and Art Galleries
723	Beauty Shops	86	Membership Organizations
724	Barber Shops	87	Engineering, Accounting, Research, Management, and Related Services
725	Shoe Repair and Shoeshine Parlors	899	Services, Not Elsewhere Classified

The Occupational Safety and Health Administration (Federal OSHA) released a Final Rule for the *electronic reporting of OSHA 300 logs beginning January 1, 2017*. As a State sponsored plan under Fed/OSHA, Cal/OSHA must adopt requirements that are substantially identical to the Final Rule. ([https://www.osha.gov/recordkeeping/final rule/index.html](https://www.osha.gov/recordkeeping/final%20rule/index.html))

Q: When do the changes take effect?  *As of Jan 1st, 2017, Cal/OSHA currently adopts the Fed/OSHA requirement!*

A: Over a “*2 Year Phase*”. Law in effect on *Jan 1st 2017*, employers submittal by *July 1, 2017*. While Cal/OSHA has not yet adopted its own ruling on how it will enforce this Final Rule, we know that the requirements will be at minimum, inclusive of Fed/OSHA.

❶ Establishments with 20-249 employees in *Certain Identified High-Hazard Industries*

- Employers currently required to keep OSHA 300 forms must submit form 300A electronically starting January 1, 2017
- These employers will have until **July 1, 2017 to submit Calendar year 2016 data**.
- Electronic filing of form 300A for 2017 data is required by July 1, 2018
- Beginning in 2019, all electronic filings must be completed by March 2nd

❷ Establishments with 250+ or more employees

- Employers currently required to keep OSHA 300 forms must submit form 300A electronically starting January 2017
- These employers will have until **July 1, 2017 to submit Calendar year 2016 data**
- Electronic filing of forms 300 and 301 will be phased in beginning in 2018 and employers will have until July 1, 2018 to submit calendar year 2017 data
- Beginning in 2019, all electronic filings must be completed by March 2nd

❸ ALL establishments continue with the usual Cal/OSHA Logs Recordkeeping & Posting Requirements

- Post Log 300A from February 1st to April 30th in an employee frequented conspicuous place.

Q: *Is my employer’s NAICS code listed under the “certain Industries” category?*

A: *The industries on this list are statistically more hazardous than industries not on this list. A full list of NAICS codes on this list can be viewed below (page 2).*

Q: *Can BBSI complete this form and submit this data for me?*

A: *No. The expectations per Cal/OSHA is that the “employer” is the responsible party to maintain all injury & illness records, maintain company files, and submit or report to Cal/OSHA the necessary data by law.*

Q: *Must I submit electronically?...and How do I submit my data to OSHA electronically?*

A: YES.  *As of Jan 1st, 2017, Fed/OSHA has not provided or established an electronic website, link, or internet platform.*

☛ **What to Expect:** Fed/OSHA, has communicated that it will provide a secure website for the mandatory electronic submission of information prior to *July 1, 2017*. The website will include web forms for direct data entry and instructions for other means of submission (e.g. file uploads). Fed/OSHA anticipates this process will take an estimated 20-30 minutes in total. *“Employers who do not have the necessary equipment or internet connection may submit their data from a public facility, such as a library. OSHA also intends to provide an interface for entering data from a mobile device.”*



January 2017 UPDATE: Cal/OSHA 300 Log Electronic Reporting Requirements

Certain High-Hazard Industries Classification: Establishments in the following industries with 20-249 employees must submit injury and illness "summary only" (Form 300A) data to OSHA electronically. ***HIGHLIGHTED = BLUE may describe your business**

NAICS	Industry
11	Agriculture, forestry, fishing and hunting
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale trade
4413	Automotive parts, accessories, and tire stores
4421	Furniture stores
4422	Home furnishings stores
4441	Building material and supplies dealers
4442	Lawn and garden equipment and supplies stores
4451	Grocery stores
4452	Specialty food stores
4521	Department stores
4529	Other general merchandise stores
4533	Used merchandise stores
4542	Vending machine operators
4543	Direct selling establishments
4811	Scheduled air transportation
4841	General freight trucking
4842	Specialized freight trucking
4851	Urban transit systems
4852	Interurban and rural bus transportation
4853	Taxi and limousine service
4854	School and employee bus transportation
4855	Charter bus industry
4859	Other transit and ground passenger transportation
4871	Scenic and sightseeing transportation, land
4881	Support activities for air transportation
4882	Support activities for rail transportation
4883	Support activities for water transportation
4884	Support activities for road transportation
4889	Other support activities for transportation
4911	Postal service
4921	Couriers and express delivery services
4922	Local messengers and local delivery
4931	Warehousing and storage
5152	Cable and other subscription programming
5311	Lessors of real estate
5321	Automotive equipment rental and leasing
5322	Consumer goods rental
5323	General rental centers
5617	Services to buildings and dwellings
5621	Waste collection
5622	Waste treatment and disposal
5629	Remediation and other waste management services
6219	Other ambulatory health care services
6221	General medical and surgical hospitals
6222	Psychiatric and substance abuse hospitals
6223	Specialty (except psychiatric and substance abuse) hospitals
6231	Nursing care facilities
6232	Residential mental retardation, mental health and substance abuse facilities
6233	Community care facilities for the elderly
6239	Other residential care facilities
6242	Community food and housing, and emergency and other relief services
6243	Vocational rehabilitation services
7111	Performing arts companies
7112	Spectator sports
7121	Museums, historical sites, and similar institutions
7131	Amusement parks and arcades
7132	Gambling industries
7211	Traveler accommodation
7212	RV (recreational vehicle) parks and recreational camps
7213	Rooming and boarding houses
7223	Special food services
8113	Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance
8123	Dry-cleaning and laundry services

Cal/OSHA

Forms for Recording Work-Related Injuries and Illnesses

What's Inside...

In this package, you'll find information that will help you complete Cal/OSHA's *Log* and *Summary of Work-Related Injuries and Illnesses* for the next several years. On the following pages, you'll find:

- ▼ **An Overview: Recording Work-Related Injuries and Illnesses** — General instructions for filling out the forms in this package and definitions of terms you should use when you classify your cases as injuries or illnesses.
- ▼ **How to Fill Out the Log** — An example to guide you in filling out the *Log* properly.
- ▼ **Log of Work-Related Injuries and Illnesses** — Several pages of the *Log* (but you may make as many copies of the *Log* as you need.) Notice that the *Log* is separate from the *Summary*.
- ▼ **Annual Summary of Work-Related Injuries and Illnesses** — Removable *Annual Summary* pages for easy posting from February 1 through April 30. Note that you post the *Annual Summary* only, not the *Log*.
- ▼ **Worksheet to Help You Fill Out the Summary** — a worksheet for figuring the average number of employees who worked for your establishment and the total number of hours worked.
- ▼ **Cal/OSHA's 301: Injury and Illness Incident Report**-- Several copies of the Cal/OSHA 301 to provide details about the incident. You may make as many copies as you need or use an equivalent form.

Take a few minutes to review this package. If you have any questions, [refer to the last page of this overview for internet and telephone assistance.](#)

An Overview: Recording Work-Related Injuries and Illnesses

The Occupational Safety and Health (OSH) Act of 1970 requires certain employers to prepare and maintain records of work-related injuries and illnesses. Use these definitions when you classify cases on the Log. Cal/OSHA's recordkeeping regulation (see CCR Title 8 14300) provides more information about the definitions below.

The *Log of Work-Related Injuries and Illnesses* (Cal/OSHA Form 300) is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the *Log* to record specific details about what happened and how it happened. The Summary — a separate form (Cal/OSHA 300A) — shows the totals for the year in each category. At the end of the year, post the *Summary* in a visible location so that your employees are aware of the injuries and illnesses occurring in their workplace.

Employers must keep a *Log* for each establishment or site. If you have more than one establishment, you must keep a separate *Log* and *Summary* for each physical location that is expected to be in operation for one year or longer.

Note that your employees have the right to review your injury and illness records. For more information, see CCR Title 8 14300.35, *Employee Involvement*.

Cases listed on the *Log of Work-Related Injuries and Illnesses* are not necessarily eligible for workers' compensation or other insurance benefits. Listing a case on the *Log* does not mean that the employer or worker was at fault or that an Cal/OSHA standard was violated.

When is an injury or illness considered work-related?

An injury or illness is considered work-related if an event or exposure in the work environment caused or contributed to the condition or significantly aggravated a preexisting condition. Work-relatedness is

presumed for injuries and illnesses resulting from events or exposures occurring in the workplace, unless an exception specifically applies. See CCR Title 8 14300.5(b)(2) for the exceptions. The work environment includes the establishment and other locations where one or more employees are working or are present as a condition of their employment. See CCR Title 8 14300.5(b)(1).

Which work-related injuries and illnesses should you record?

Record those work-related injuries and illnesses that result in:

- ▼ death,
- ▼ loss of consciousness,
- ▼ days away from work,
- ▼ restricted work activity or job transfer, or
- ▼ medical treatment beyond first aid.

You must also record work-related injuries and illnesses that are significant (as defined below) or meet any of the additional criteria listed below.

You must record any significant work-related injury or illness that is diagnosed by a physician or other licensed health care professional. You must record any work-related case involving cancer, chronic irreversible disease, a fractured or cracked bone, or a punctured eardrum. See CCR Title 8 14300.7.

What are the additional criteria?

You must record the following conditions when they are work-related:

- ▼ any needlestick injury or cut from a sharp object that is contaminated with another person's blood or other potentially infectious material;
- ▼ any case requiring an employee to be medically removed under the requirements of an Cal/OSHA health standard;
- ▼ tuberculosis infection as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional after exposure to a known case of active tuberculosis.
- ▼ an employee's hearing test (audiogram) reveals 1) that the employee has experienced a Standard Threshold Shift (STS) in hearing in one or both ears (averaged at 2000, 3000, and 4000 Hz) and 2) the employee's total hearing level is 25 decibels (dB) or more above audiometric zero (also averaged at 2000, 3000, and 4000 Hz) in the same ear(s) as the STS.

What is medical treatment?

Medical treatment includes managing and caring for a patient for the purpose of combating disease or disorder. The following are not considered medical treatments and are NOT recordable:

- ▼ visits to a doctor or health care professional solely for observation or counseling;

What do you need to do?

1. Within 7 calendar days after you receive information about a case, decide if the case is recordable under the Cal/OSHA recordkeeping requirements.
2. Determine whether the incident is a new case or a recurrence of an existing one.
3. Establish whether the case was work-related.
4. If the case is recordable, decide which form you will fill out as the injury and illness incident report.
You may use *Cal/OSHA's 301: Injury and Illness Incident Report* or an equivalent form. Some state workers compensation, insurance, or other reports may be acceptable substitutes, as long as they provide the same information as Cal/OSHA 301, including privacy warnings.

How to work with the Log

1. Identify the employee involved unless it is a privacy concern case as described below.
2. Identify when and where the case occurred.
3. Describe the case, as specifically as you can.
4. Classify the seriousness of the case by recording the **most serious outcome** associated with the case, with column G (Death) being the most serious and column J (Other recordable cases) being the least serious.
5. Identify whether the case is an injury or illness. If the case is an injury, check the injury category. If the case is an illness, check the appropriate illness category.

- ▼ diagnostic procedures, including administering prescription medications that are used solely for diagnostic purposes; and
- ▼ any procedure that can be labeled first aid. (See below for more information about first aid.)

What is first aid?

If the incident required only the following types of treatment, consider it first aid. Do NOT record the case if it involves only:

- ▼ using non-prescription medications at non-prescription strength;
- ▼ administering tetanus immunizations;
- ▼ cleaning, flushing, or soaking wounds on the skin surface;
- ▼ using wound coverings, such as bandages, BandAids™, gauze pads, etc., or using SteriStrips™ or butterfly bandages.
- ▼ using hot or cold therapy;
- ▼ using any totally non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc.;
- ▼ using temporary immobilization devices while transporting an accident victim (splints, slings, neck collars, or back boards).
- ▼ drilling a fingernail or toenail to relieve pressure, or draining fluids from blisters;
- ▼ using eye patches;
- ▼ using simple irrigation or a cotton swab to remove foreign bodies not embedded in or adhered to the eye;
- ▼ using irrigation, tweezers, cotton swab or other simple means to remove splinters or foreign material from areas other than the eye;

- ▼ using finger guards;
- ▼ using massages;
- ▼ drinking fluids to relieve heat stress

How do you decide if the case involved restricted work?

Restricted work activity occurs when, as the result of a work-related injury or illness, an employer or health care professional keeps, or recommends keeping, an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred.

How do you count the number of days of restricted work activity or the number of days away from work?

Count the number of calendar days the employee was on restricted work activity or was away from work as a result of the recordable injury or illness. Do not count the day on which the injury or illness occurred in this number. Begin counting days from the day after the incident occurs. If a single injury or illness involved both days away from work and days of restricted work activity, enter the total number of days for each. You may stop counting days of restricted work activity or days away from work once the total of either or the combination of both reaches 180 days.

Under what circumstances should you NOT enter the employee's name on the Cal/OSHA Form 300?

You must consider the following types of injuries or illnesses to be privacy concern cases:

- ▼ an injury or illness to an intimate body part or to the reproductive system,
 - ▼ an injury or illness resulting from a sexual assault,
 - ▼ a mental illness,
 - ▼ a case of HIV infection, hepatitis, or tuberculosis,
 - ▼ a needlestick injury or cut from a sharp object that is contaminated with blood or other potentially infectious material (see CCR Title 8 14300.8 for definition), and
 - ▼ other illnesses, if the employee independently and voluntarily requests that his or her name not be entered on the log.
- You must not enter the employee's name on the Cal/OSHA 300 Log for these cases. Instead, enter "privacy case" in the space normally used for the employee's name. You must keep a separate, confidential list of the case numbers and employee names for the establishment's privacy concern cases so that you can update the cases and provide information to the government if asked to do so.

If you have a reasonable basis to believe that information describing the privacy concern case may be personally identifiable even though the employee's name has been omitted, you may use discretion in describing the injury or illness on both the Cal/OSHA 300 and 301 forms. You must enter enough information to identify the cause of the incident and the general severity of

the injury or illness, but you do not need to include details of an intimate or private nature.

What if the outcome changes after you record the case?

If the outcome or extent of an injury or illness changes after you have recorded the case, simply draw a line through the original entry or, if you wish, delete or white-out the original entry. Then write the new entry where it belongs. Remember, you need to record the most serious outcome for each case.

Classifying injuries

An injury is any wound or damage to the body resulting from an event in the work environment.

Examples: Cut, puncture, laceration, abrasion, fracture, bruise, contusion, chipped tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical, or radiation burn. Sprain and strain injuries to muscles, joints, and connective tissues are classified as injuries when they result from a slip, trip, fall or other similar accidents.

Classifying illnesses

Skin diseases or disorders

Skin diseases or disorders are illnesses involving the worker's skin that are caused by work exposure to chemicals, plants, or other substances.

Examples: Contact dermatitis, eczema, or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; friction blisters, chrome ulcers; inflammation of the skin.

Respiratory conditions

Respiratory conditions are illnesses associated with breathing hazardous biological agents, chemicals, dust, gases, vapors, or fumes at work.

Examples: Silicosis, asbestosis, pneumonitis, pharyngitis, rhinitis or acute congestion; farmer's lung, beryllium disease, tuberculosis, occupational asthma, reactive airways dysfunction syndrome (RADS), chronic obstructive pulmonary disease (COPD), hypersensitivity pneumonitis, toxic inhalation injury, such as metal fume fever, chronic obstructive bronchitis, and other pneumoconioses.

Poisoning

Poisoning includes disorders evidenced by abnormal concentrations of toxic substances in blood, other tissues, other bodily fluids, or the breath that are caused by the ingestion or absorption of toxic substances into the body.

Examples: Poisoning by lead, mercury,

cadmium, arsenic, or other metals; poisoning by carbon monoxide, hydrogen sulfide, or other gases; poisoning by benzene, benzol, carbon tetrachloride, or other organic solvents; poisoning by insecticide sprays, such as parathion or lead arsenate; poisoning by other chemicals, such as formaldehyde.

Hearing Loss

Noise-induced hearing loss is defined for recordkeeping purposes as a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more in either ear at 2000, 3000 and 4000 hertz, and the employee's total hearing level is 25 decibels (dB) or more above audiometric zero (also averaged at 2000, 3000, and 4000 hertz) in the same ear(s).

All other illnesses

All other occupational illnesses.

Examples: Heatstroke, sunstroke, heat exhaustion, heat stress and other effects of environmental heat; freezing, frostbite, and other effects of exposure to low temperatures; decompression sickness; effects of ionizing radiation (isotopes, x-rays, radium); effects of nonionizing radiation (welding flash, ultra-violet rays, lasers); anthrax; bloodborne pathogenic diseases, such as AIDS, HIV, hepatitis B or hepatitis C; brucellosis; malignant or benign tumors; histoplasmosis; coccidioidomycosis.

When must you post the Summary?

You must post the *Summary* only — not the *Log* — by February 1 of the year following the year covered by the form and keep it posted until April 30 of that year.

How long must you keep the Log and Summary on file?

You must keep the *Log* and *Summary* for 5 years following the year to which they pertain.

Do you have to send these forms to Cal/OSHA at the end of the year?

No. You do not have to send the completed forms to Cal/OSHA unless specifically asked to do so.

How can we help you?

If you have a question about how to fill out the *Log*,

- visit us online at www.dir.ca.gov/dosh/, or
- call your local **DOSH Consultation office**, listed at the end of this overview.

Calculating Injury and Illness Incidence Rates



What is an incidence rate?

An incidence rate is the number of recordable injuries and illnesses occurring among a given number of full-time workers (usually 100 full-time workers) over a given period of time (usually one year). To evaluate your firm's injury and illness experience over time or to compare your firm's experience with that of your industry as a whole, you need to compute your incidence rate. Because a specific number of workers and a specific period of time are involved, these rates can help you identify problems in your workplace and/or progress you may have made in preventing work-related injuries and illnesses.

How do you calculate an incidence rate?

You can compute an occupational injury and illness incidence rate for all recordable cases or for cases that involved days away from work for your firm quickly and easily. The formula requires that you follow instructions in paragraph (a) below for the total recordable cases or those in paragraph (b) for cases that involved days away from work, and for both rates the instructions in paragraph (c).

(a) To find out the total number of recordable injuries and illnesses that occurred during the year, count the number of line entries on your Cal/OSHA Form 300, or refer to the Cal/OSHA Form 300A and sum the entries for columns (G), (H), (I), and (J).

(b) To find out the number of injuries and illnesses that involved days away from work, count the number of line entries on your Cal/OSHA Form 300 that received a check mark in column (H), or refer to the entry for column (H) on the Cal/OSHA Form 300A.

(c) The number of hours all employees actually worked during the year. Refer to Cal/OSHA Form 300A and optional worksheet to calculate this number.

You can compute the incidence rate for all recordable cases of injuries and illnesses using the following formula:

$$\frac{\text{Total number of injuries and illnesses}}{\text{Number of hours worked by all employees}} \times 200,000 \text{ hours} = \text{Total recordable case rate}$$

(The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rates.)

You can compute the incidence rate for recordable cases involving days away from work, days of restricted work activity or job transfer (DART) using the following formula:

$$\frac{\text{Number of injuries in column H} + \text{Number of entries in column I}}{\text{Number of hours worked by all employees}} \times 200,000 \text{ hours} = \text{DART incidence rate}$$

You can use the same formula to calculate incidence rates for other variables such as cases involving restricted work activity (column (I) on Form 300A, cases involving skin disorders (column (M-2) on Form 300A), etc. Just substitute the appropriate total for these cases, from Form 300A, into the formula in place of the total number of injuries and illnesses.

What can I compare my incidence rate to?

The Bureau of Labor Statistics (BLS) conducts a survey of occupational injuries and illnesses each year and publishes incidence rate data by

various classifications (e.g., by industry, by employer size, etc.). You can obtain these published data at www.bls.gov or by calling a BLS Regional Office.

Worksheet

Total number of recordable injuries and illnesses in your establishment

÷

X 200,000 =

Total recordable cases incidence rate

Hours worked by all your employees

Total number of recordable injuries and illnesses with a checkmark in column H or column I

÷

X 200,000 =

DART incidence rate

Hours worked by all your employees

How to Fill Out the Log

The *Log of Work-Related Injuries and Illnesses* is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the *Log* to record specific details about what happened and how it happened.

If your company has more than one establishment or site, you must keep separate records for each physical location that is expected to remain in operation for one year or longer.

We have given you several copies of the *Log* in this package. If you need more than we provide, you may photocopy and use as many as you need.

The *Annual Summary* – a separate form – shows the work-related injury and illness totals for the year in each category. At the end of the year, count the number of incidents in each category and transfer the totals from the *Log* to the *Annual Summary*. Then post the *Annual Summary* in a visible location so that your employees are aware of injuries and illnesses occurring in their workplace.

You don't post the Log. You post only the Annual Summary at the end of the year.

Call/OSHA Form 300 (Rev. 4/2004) Appendix A
Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes. See CCR Title 8 14300.29(b)(5)-(10)

Year 20 CAL OSHA
 Department of Industrial Relations
 Division of Occupational Safety and Health

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work ability or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in CCR Title 8 Section 14300.8 through 14300.12. *April 1998* Use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (Cal/OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local Call/OSHA office for help.

Employment name XYZ Company
 City Anywhere State CA

Identify the person		Describe the case			Classify the case											
(A) Case No.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., month/day)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and aggravance that directly injured or made person ill (e.g., Second degree burns on right forearm from arc/welding torch)	Using these four categories, check ONLY the most serious result for each case:				Enter the number of days the injured or ill worker was:		Check the "Injury" column. Choose one type of illness.				
						Death	Days away from work	Restricted of work		On job transfer or restriction (G)	Away from work (H)	(I)				
								Job transfer or restriction (J)	Other recordable case (K)			1) Injury	2) Skin	3) Eye	4) Hearing loss	5) Other
1	Mark Begin	Welder	5/25 monthly	basement	fracture, left arm & left leg, fell from ladder	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 days	15 days	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Shana Alexander	Foundry mtr	7/2 monthly	pouring deck	poisoning from lead fumes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30 days	30 days	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Sam Sander	Electrician	8/5 monthly	2nd flr storeroom	broken left foot, fell over box	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 days	30 days	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Ralph Boccella	Laborer	08/12 monthly	packaging dept.	back strain lifting boxes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 days	30 days	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Jarrod Daniels	Mach. opr	10/23 monthly	production floor	dust in eyes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	30 days	30 days	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Be as specific as possible. You can use two lines if you need more room

Revise the log if the injury or illness progresses and the outcome is more serious than you originally recorded for the case. Cross out, erase or white-out the original entry.

Choose ONE of these categories. Classify the case by recording the most serious outcome of the case, with column J (Other recordable cases) being the least serious and column G (Death) being the most serious.

Note whether the case involves an injury or illness.



Cal/OSHA Form 300 (Rev. 7/2007) Appendix A

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes. See CCR Title 8 14300.29(b)(6)-(10)



Year 20__

Department of Industrial Relations
Division of Occupational Safety and Health

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in CCR Title 8 Section 14300.8 through 14300.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (Cal/OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local Cal/OSHA office for help.

Establishment name _____

City _____ State _____

Identify the person

Describe the case

Classify the case

(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	Using these four categories, check ONLY the most serious result for each case:				Enter the number of days the injured or ill worker was:		Check the "Injury" column or choose one type of illness:					
						Death (G)	Days away from work (H)	Remained at work (I) Job transfer or restriction (J) Other recordable cases		(K)	(L)	(M) Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
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Annual Summary of Work-Related Injuries and Illnesses



All establishments covered by CCR Title 8 Section 14300 must complete this Annual Summary, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

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

Employees, former employees, and their representatives have the right to review the Cal/OSHA Form 300 in its entirety. They also have limited access to the Cal/OSHA Form 301 or its equivalent. See CCR Title 8 Section 14300.35, in Cal/OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
_____	_____	_____	_____
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
_____	_____
(K)	(L)

Injury and Illness Types

Total number of . . .			
(M)			
(1) Injuries	_____	(4) Poisonings	_____
(2) Skin disorders	_____	(5) Hearing loss	_____
(3) Respiratory conditions	_____	(6) All other Illnesses	_____

Establishment information

Your establishment name _____

Street _____

City _____ State _____ ZIP _____

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

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

Employment information (If you don't have these figures, use the optional Worksheet to estimate.)

Annual average number of employees _____

Total hours worked by all employees last year _____

Sign here

Knowingly falsifying this document may result in a fine.

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

Company executive _____ Title _____

Phone _____ Date _____

Worksheet to Help You Fill Out the Annual Summary

At the end of the year, Cal/OSHA requires you to enter the average number of employees and the total hours worked by your employees on the Annual Summary. If you don't have these figures, you can use the information on this page to estimate the numbers you will need to enter on the Annual Summary at the end of the year.

How to figure the average number of employees who worked for your establishment during the year:

- 1** Add the total number of employees your establishment paid in all pay periods during the year. Include all employees: full-time, part-time, temporary, seasonal, salaried, and hourly.

The number of employees paid in all pay periods = **1** _____
- 2** Count the number of pay periods your establishment had during the year. Be sure to include any pay periods when you had no employees.

The number of pay periods during the year = **2** _____
- 3** Divide the number of employees by the number of pay periods.

$\frac{\mathbf{1}}{\mathbf{2}}$ _____ = **3** _____
- 4** Round the answer to the next highest whole number. Write the rounded number in the blank marked *Annual average number of employees*.

The number rounded = **4** _____

For example, Acme Construction figured its average employment this way:

For pay period...	Acme paid this number of employees...		
1	10	Number of employees paid =	1
2	0		
3	15	Number of pay periods =	2
4	30		
5	40	$\frac{830}{26} =$	3
▼	▼	31.92	
24	20	31.92 rounds to	4
25	15		
26	+10	32 is the annual average	
	830	number of employees	

How to figure the total hours worked by all employees:

Include hours worked by salaried, hourly, part-time and seasonal workers, as well as hours worked by other workers subject to day to day supervision by your establishment (e.g., temporary help services workers).

Do not include vacation, sick leave, holidays, or any other non-work time, even if employees were paid for it. If your establishment keeps records of only the hours paid or if you have employees who are not paid by the hour, please estimate the hours that the employees actually worked.

If this number isn't available, you can use this optional worksheet to estimate it.

Optional Worksheet

- _____ Find the number of full-time employees in your establishment for the year.
- X** _____ Multiply by the number of work hours for a full-time employee in a year.
- _____ This is the number of full-time hours worked.
- +** _____ Add the number of any overtime hours as well as the hours worked by other employees (part-time, temporary, seasonal)
- _____ Round the answer to the next highest whole number. Write the rounded number in the blank marked *Total hours worked by all employees last year*.

Cal/OSHA Form 301

Injury and Illness Incident Report

Appendix C

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.
See CCR Title 8 14300.29(b)(6)-(10)



Department of Industrial Relations
Division of Occupational Safety & Health

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with *Log of Work-Related Injuries and Illnesses* and the accompanying *Annual Summary*, these forms help the employer and Cal/OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the instructions and information asked for on this form.

According to CCR Title 8 Section 14300.33 Cal/OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Completed by _____

Title _____

Phone (____) _____-_____ Date ____/____/____

Information about the employee

- 1) Full name _____
- 2) Street _____
- City _____ State _____ ZIP _____
- 3) Date of birth ____/____/____
- 4) Date hired ____/____/____
- 5) Male
 Female

Information about the physician or other health care professional

- 6) Name of physician or other health care professional _____
- 7) If treatment was given away from the worksite, where was it given?
- Facility _____
- Street _____
- City _____ State _____ ZIP _____
- 8) Was employee treated in an emergency room?
 Yes
 No
- 9) Was employee hospitalized overnight as an in-patient?
 Yes
 No

Information about the case

- 10) Case number from the Log _____ (Transfer the case number from the Log after you record the case.)
- 11) Date of injury or illness ____/____/____
- 12) Time employee began work _____ AM / PM
- 13) Time of event _____ AM / PM Check if time cannot be determined
- 14) What was the employee doing just before the incident occurred? Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. Examples: "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."
- 15) What happened? Tell us how the injury occurred. Examples: "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."
- 16) What was the injury or illness? Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or "sore." Examples: "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."
- 17) What object or substance directly harmed the employee? Examples: "concrete floor"; "chlorine"; "radial arm saw." If this question does not apply to the incident, leave it blank.
- 18) If the employee died, when did death occur? Date of death ____/____/____

If You Need Help...



- ◆ Visit us online at www.dir.ca.gov/DOSH/dosh1.html or
- ◆ Send us e-mail at infocons@dir.ca.gov or
- ◆ Call your local DOSH Consultation Office and ask for record keeping information.
 - ~~At~~ Fresno-Central Valley – 1901 North Gateway Blvd., Suite 102, Fresno CA 93727
(559) 454-1295
 - Oakland-San Francisco Bay Area – 1515 Clay Street, Suite 1103, Oakland CA 94612
(510) 622-2891
 - Sacramento-Northern California – 2424 Arden Way, Suite 410, Sacramento CA 95825
(916) 263-0704
 - San Bernardino-Inland Empire – 464 West 4th Street, Suite 339, San Bernardino CA 92401
(909) 383-4567
 - San Diego-Imperial & San Diego counties – 7575 Metropolitan Drive, Suite 204,
San Diego CA 92108
(619) 767-2060
 - San Fernando Valley-Santa Barbara & NW Los Angeles county – 6150 Van Nuys Blvd.,
Suite 307, Van Nuys CA 91401
(818) 901-5754
 - Santa Fe Springs- Los Angeles Metro Area & Orange Co. – 1 Centerpointe Drive,
Suite 150, La Palma 90623
(714) 562-5525