MANAGER

Construction Safety & Injury Prevention Program

WORKBOOK

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Introduction

Construction Safety & Injury Prevention Program

The Construction Safety & Injury Prevention Program (CSIP) and the Safety & Injury Prevention Plan (SIPP) programs have been made possible by the Susan Harwood Training Grant Program, which supports training and education programs for workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in their workplaces.

The goal of CSIP is to address prevention and identification of construction safety and health hazards to "secure safe and healthy workplaces, particularly in high-risk industries" (DOL's Strategic Objective, Performance Goal OSHA 2.1). The Building Industry Association of Hawaii, along with contributions from local organizations, businesses, and individuals, such as the Hawaii Safety Alliance and the Hawaii Chapter Veterans of Safety, has developed CSIP. The CSIP Workbook is intended to accompany the presentations. It includes a number of activities, resources, and note pages to further enrich the information presented.

OSHA Statistics: Source: https://www.osha.gov/oshstats/commonstats.html

OSHA performed 31,948 federal inspections and 43,105 State Plan inspections (2016). In 2015, 4,836 workers were killed on the job, an average of more than 93 deaths per week, or more than 13 deaths every day; 937 of these workers were in the construction industry. The leading cause of deaths (excluding highway collisions) was as a result of the **Fatal Four**: falls, struck by object, electrocution, and caught-in/between. The Fatal Four caused 64.2% of the construction-related deaths in 2015. Eliminating the Fatal Four would save 602 workers' lives in America every year.

Fatal Four Statistics	**Top 10 most frequently cited OSHA standards violated**
I. Falls — 364 (38.8%) II. Struck by Object - 90 (9.6%) III. Electrocutions - 81 (8.6%) IV. Caught-in/between - 67 (7.2%) (This category includes construction workers killed when caught-in or compressed by equipment or objects, and struck, caught, or crushed in collapsing structure, equipment, or material) (2015)	I. Fall protection, construction communication standard, general industry II. Hazard communication standard, general industry III. Scaffolding, general requirements, construction IV. Respiratory protection, general industry V. Control of hazardous energy (lockout/ tagout), general industry VI. Powered industrial trucks, general industry VII. Ladders, construction VIII. Machinery and Machine Guarding, general requirements IX. Electrical, wiring methods, components and equipment, general industry X. Electrical systems design, general requirements, general industry (2016)

Introduction

Evaluations

As this program has been funded through a grant, continued support for these types of programs necessitates lively engagement. Your attendance already is a critical component of the continuation of these types of programs. We are required to provide the Funder information so that they can evaluate the success of this program. The Funder wants your perception of the importance and effectiveness of this program. Immediately following the training session, you will be asked to fill out two evaluations. You will be asked to fulfill the third evaluation a few months after the end of the program. Each evaluation assesses a different aspect of the training and each are equally important. These evaluations measure your perception of the effectiveness and efficiency of the program. It is appreciated that you answer all questions honestly and to the best of your ability. Please provide detailed feedback so we may improve this program in the future.

The types of evaluations are described below:

1. **Level 1- Training Session Reaction:** Level 1 evaluations focus on your perceptions of the training program and the trainer(s). More specifically, these questions are designed to evaluate if the training was useful and relevant. The results of this evaluation will be used to improve future training programs.

2. **Level 2- Learning Evaluation:** Level 2 evaluations focus on the skills and information that you retain. The results will not affect you receiving your certification. This evaluation is shared with the Funder to demonstrate how the training program was effective.

3. **Level 3-Training Impact Assessment:** Level 3 evaluations will occur a few months after the conclusion of the CSIP program. The last evaluation demonstrates how much of what was learned has been applied to the workplace. This will measure the impact of your training in the workplace.

Module 1-1: Leadership Commitment to Operational Safety

Activity 1: Company Emphasis

Answer questions 1 & 2

I. How does your company treat workplace safety? (Don't worry! No one will see this!)

_____

_____

_____

_____

_____

_____

II. Who is responsible for ensuring work activities are accomplished safely?

_____

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Answer questions 3 & 4

III. What do you feel could be done differently at your company to ensure a safe workplace and/or reduce workplace hazards?

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_____

IV. What can you do differently to advance workplace safety at your company?

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_____

_____

Module 1-2: Workplace Safety & Employee Engagement

Handout 1: Workplace Safety

Creating a company culture to implement Work Place Safety

The first step towards implementing policies that will lead to a safe workplace is to change the overall safety culture of your company. While implementing a policy that will lead to no incidents is ideal, attaining a minimal incident policy is more realistic. In order to change the culture, one must be able to define a safety culture. A culture is an attitude that develops over time, based upon learning, personal experiences, beliefs, and upbringing; and is widely demonstrated by company staff. While adjusting your safety culture, keep in mind that most people are resistant to change. This change is an evolving process for some and a revolution for others.

How does the culture change? There are many ways to achieve the desired results of minimal incidents. The fundamental methods involve a grassroots approach of empowering the employee. In addition, top management support and promoting leadership actions within the organization will enhance the visibility of the safety culture.

The following are some important steps that can be used to foster a change in a company safety culture toward minimal incidents.

<u>Steps</u>

I. Define the need for change: must come from management. Management must communicate and demonstrate expectations and how employees will benefit from the change in safety culture

II. Commit to the desired result: Management must provide guidance to achieve goals and target objectives to work towards the vision of minimal incidents. Demonstrated commitment must be evident from all levels of management. Too often, management voices its commitment, yet it does not know how to visibly demonstrate that commitment to employees.

III. Assess current safety culture: Actively solicit employee input and, in return, provide feedback to employees. Examine technical and human factors, and identify and remove barriers that prevent desired performance. Evaluate environmental, organizational, and cultural influences.

IV. Strategically plan for implementation: Use staff input and pertinent data collected to define critical issues and prioritize them accordingly. Develop goals and objectives that are aligned with the overall company culture. Determine the barriers that exist and create a strategy to address them.

V. Focus on Incident Control: The vision is no incidents. Although there is some disagreement as to whether this is possible, the bottom line is to continue to work towards achieving minimal incidents.

VI. Implement and communicate: It is necessary for behaviors to change. Be sure that there is consistency and commitment among leadership and clearly communicated goals.

VII. Evaluate and measure results: Review progress and evaluate results on a regular basis. Are incidents increasing or decreasing? If there is an increase, the system is out of control. A decrease indicates that the system is improving and appears to be working towards long-term improvement.

Roles

Management, the safety professional, and employees all play differing, but key, roles in developing the new safety culture.

- **Management**
  Most of the time, management and employees are blamed for incidents. In reality, it is usually the management system alone that is to blame. Management must come to the realization that the organization needs to commit resources to allow safety improvements.

- **Safety Staff**
  Some companies consider the safety professional "at fault" when an incident occurs. However, in many cases safety professionals are the driving force but are implementing management directives. The safety professional provides the appropriate mentoring, coaching, and guidance to help management make the right decisions. But, one must remember that executive management must be the authority; top-level managers must make the final decision.

- **Employee**
  One of the keys to success is to involve employees in the safety process. Employees must understand that they must take an active role in the development and planning of the new safety culture. It is vitally important to the success of the process that employees are provided with the tools, funding, and resources to accomplish the given tasks

Source*:* http://www.controleng.com/single-article/zero-incidents-achieving-a-new-safety-culture/7a24e7461aeb0cb3ae91f550c95b12b4.html

Module 1-2: Workplace Safety & Employee Engagement

Small Group: Activity 1: Safety Statement

Brainstorm ideas for your Safety Statement and then draft a sample Safety Statement.

Here is an example:

It is the intent of XYZ Industries to provide a safe work environment for all our workers and the wellness of our people, families, and communities. We embrace healthy habits and behaviors. It is also our intent to properly manage any incidents that occur so as to minimize injury and other forms of loss. A well-managed workplace safety program can benefit our company in countless ways. In order for XYZ Industries to achieve our goals, we have developed a safety program outlining our policies and procedures regarding employee health and safety. Each and every individual must become familiar with the program, follow and enforce the procedures, and become an active participant in this workplace safety program.

While management (workplace safety officer and safety committee) will be responsible for developing, and organizing this program, its success will depend on the involvement of each employee. We look forward to your cooperation and participation.

Your Safety Statement

Module 1-3: Hazard Identification Plan

Activity 1: Group Discussion

Work in groups to answer the following questions

What are some hazards that you can think of? (Doesn't need to be relevant to your job)

I. _____ IV. _____

II. _____ V. _____

III. _____ VI. _____

Eliminate the hazards you came up with.

I. _____ IV. _____

II. _____ V. _____

III. _____ VI. _____

Identifying Workplace Hazards

List the hazards you encounter at your workplace:

I. _____

II. _____

III. _____

IV. _____

V. _____

VI. _____

What can be done (by the company, colleagues, and/or you personally) to mitigate these hazards to prevent injury?

I. _____

II. _____

III. _____

IV. _____

V. _____

VI. _____

Module 1-3: Hazard Identification Plan

Activity 2: Identifying Hazards: Hidden Messages

Work in groups to answer the following questions

Identify some unclear/ vague messages that employees receive regarding work and/or safety

Example: Lift Properly

I. _____

II. _____

III. _____

IV. _____

V. _____

How can these messages be clearer to strongly emphasize safety as the priority?

Example: Remember to always use the 4-step lift method when lifting heavy objects:
1. Size up the load 2. Lift with your legs 3. Move the load 4. Get set and lower

I. _____

II. _____

III. _____

IV. _____

V. _____

Module 1-4: Workplace Safety Rules & Hazard Control

Activity 1: Safety Rules

Safety Rules are intended to prevent accidents ensuring safe and successful business operations

DISCUSSION! Develop some general safety rules that can be used to avoid Focus Four injuries at this site.

Rules to prevent electrical incidents

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Rules to prevent falls

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Rules to prevent “struck by” incidents

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_____

Rules to prevent caught in/ between incidents

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Module 1-4: Workplace Safety Rules & Hazard Control

Activity 2: Worksite Analysis: Spot the Hazards

Work in groups to identify any hazards posted in the picture.

This company was cited for numerous hazards. How many can you find?

Module 1-4: Workplace Safety Rules & Hazard Control

Handout 1: Job Safety Analysis

JOB HAZARD ANALYSIS (J.H.A.)

Job: Putting Out A Fire — Using A Dry Chemical Fire Extinguisher

Tools/Equipment Required	**Material Required**	**Personal Protective Equipment**
Dry Chemical Fire Extinguisher		Hard Hat
		Safety Glasses

Steps	Sequence of Steps	Potential Accidents or Hazards	Recommended Safe Job Procedure
1.	Remove Extinguisher from hanger.	Extinguisher may fall.	Grasp extinguisher securely.
2.	Carry extinguisher in upright position to fire.	Fall by tripping or slipping.	Observe walking areas, obstacles, slippery surfaces.
3.	Pull pin of extinguisher, hold hose or horn in one hand.	Contact with contents.	Maintain control of extinguisher, avoid exposing individuals to contents.
4.	Use the extinguisher.	a. Caught in spread of fire. b. Clothing catches on fire. c. Resurgence of fire.	a. Use contents with rapid sweeping motion at base of flame. b. Keep proper distance. c. Move away when extinguisher empties. ever turn your back to fire. Renew attack when indicated.
5.	Promptly report use of extinguisher.	If not re-charged, potential for serious fire.	Always check extinguisher after use and have it re-charged and put back in service immediately.
6.	Take extinguisher out of service and have it re-charged.		

Developed By: 1.	**2.**	**3.**
Reviewed By: 1. (Name) (Position)	**Approved By:** (Name) (Position)	
Revised By:	**Date:**	

Source: http://mhca.mb.ca/wp-content/uploads/2010/11/tab4form2jobhazardanalysissample2.pdf

Module 1-4: Workplace Safety Rules & Hazard Control

Handout 2: Sample Standard Operating Procedure (SOP)

SOP HS-039
HAND AND POWER TOOLS SAFETY PROGRAM

1.0 POLICY

ECC's Hand and Power Tools Safety Program is prepared in accordance with 29 CFR 1910 Subpart P - *Hand and Portable Powered Tools and Other Hand-Held Equipment* (1910.241 to 1910.244); and 29 CFR 1926 Subpart I - *Tools - Hand and Power* (1926.300 to 1926.307).

2.0 OBJECTIVE

The objective of ECC's Hand and Power Tool Safety Program is to reduce the likelihood of injuries and accidents caused by improper handling.

3.0 SAFE OPERATING REQUIREMENTS

All hand tools shall be kept in good repair and used only for the purpose intended. Defective tools shall be acceptably repaired or removed from service. Tools shall not be thrown from one level to another, and when used overhead, shall be secured or placed in holders when not in actual use. All electrical tools shall be of the approved double or triple insulated type or grounded. Hand and portable power tools and equipment shall be guarded IAW 29 CFR 1910.243. Training on the use of hand tools/electrical tools shall be conducted by a competent person. Only trained/qualified employees shall operate tools.

4.0 HAND ARM VIBRATION (HAVs) – REYNAUD'S SYNDROME

Power tools designed to have minimal vibrations will be more comfortable to use and less likely to result in hand arm vibration (HAVS) also known as Reynaud's syndrome. Hand-arm vibration is caused by the use of vibrating hand-held tools. The nature of these tools involves vibration (a rapid back-and-forth type of motion) that is transmitted from the tool to the hands and arms of the person holding the tool. HAVS causes numbness and blanching of the hands, and can progress to complete disability if the worker is not removed from exposure.

The harmful health effects of vibrating tools are related to the length of time that a worker has been using vibrating tools and to the frequency of the vibration. The longer a person uses a vibrating tool, and the faster the tool vibrates the greater the risk of health effects. Temporary tingling or numbness during or soon after use of a vibrating hand tool is not considered to be HAVS; however, tingling and numbness in the fingers lasting more than an hour after finishing work may indicate early stages of HAVS.

Many of the symptoms of vibration syndrome will disappear shortly after a worker stops using the types of tools with transmit vibration to the hands and arms. Fatigue and muscular pain in

1

Module 2-1: OSHA Inspections

Activity 1: Introduction to OSHA

Answer some brief questions about OSHA

DISCUSSION! What is the purpose of OSHA?

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What rights do you have through OSHA? (Choose all that apply)

a) Right to a safe workplace; b) Health insurance; c) Right to complain or request hazard correction from employer; d) Right to know about hazardous chemicals; e) Vacation hours

What responsibilities do employers have under OSHA? (Choose all that apply)

a) Keep records of injuries and illnesses; b) Provide and pay for most PPE; c) Provide medical exams and access to their exposure and medical records; d) Provide training required by OSHA standards

DISCUSSION! Name some things/areas that OSHA might inspect

I. _____ IV. _____

II. _____ V. _____

III. _____ VI. _____

Module 2-1: OSHA Inspections

Handout 1: OSHA Inspection

Be Prepared! Know what they are looking for:

OSHA seeks to focus its inspection resources on the most hazardous workplaces in the following order of priority:

1. **Imminent danger situations**—Hazards that could cause death or serious physical harm receive top priority. Compliance officers will ask employers to correct these hazards immediately or remove endangered employees.

2. **Fatality or Severe Injury —**Employers must report:

- All work-related fatalities within 8 hours.
- All work-related inpatient hospitalizations, amputations, or losses of an eye within 24 hours.

3. **Complaints/ Referrals**—Allegations of hazards or violations also receive a high priority. Employees may request anonymity when they file complaints. **Referrals of hazards from other federal, state or local agencies, individuals, organizations or the media receive consideration for inspection**.

4. **Programmed inspections**—These inspections are aimed at specific high-hazard industries or individual workplaces that have experienced high rates of injuries and illnesses also receive priority.

On-site Inspections Preparation—

Before conducting an inspection, OSHA compliance officers research the inspection history of a worksite using various data sources; review the operations and processes in use and the standards most likely to apply. They gather appropriate personal protective equipment and testing instruments to measure potential hazards. Presentation of credentials—The on-site inspection begins with the presentation of the compliance officer’s credentials, which include both a photograph and a serial number.

DISCUSSION! Name some things that you might do in order to prepare for an OSHA inspection

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DISCUSSION! Working as a small group, brainstorm an unsafe situation and compose an OSHA complaint. Describe briefly the hazard(s), which you believe exist. Include the approximate number of employees exposed to or threatened by each hazard. Specify the particular building or worksite where the alleged violation exists.

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Module 2-1: OSHA Inspections

Handout 2: OSHA Penalties

How much are penalties? The present penalty structure is shown below. As the history of citations increases the probability and severity of high penalties in the future is multiplied.

OSHA Penalties

Penalties are in the process of increasing significantly!

Type of Violation	New Maximum Penalty (January 2, 2018)
Serious Other-Than-Serious Posting Requirements	$12,934 per violation
Failure to Abate	$12,934 per day beyond the abatement date
Willful or Repeated	$129,336 per violation

Source: https://www.osha.gov/penalties/

Module 2-1: OSHA Inspections

Handout 3: OSHA Penalty Contesting FAQs

OSHA FAQs

I. **Will a decision to contest anger the OSHA or HIOSH office and will result in future inspections, harassment, discrimination, etc.?**
Consideration: The present laws do not permit the OSHA or HIOSH Compliance Officer or the agencies to take any actions against the employer.

II. **If the penalties are $5,000 would it not be cost prohibitive to contest?**
Consideration: Litigation is expensive. It is not unreasonable to expect litigation costs to be in excess of $10,000. There are other factors that will impact future penalties and costs. See the considerations for repeat violations.

III. **What if the citations are based on information and evidence that is incorrect or lacks the evidence of a prima facie case?**
For example, if an extension cord is found to be laid across an aisle in an unused back storage room, a contest showing that there were no employees exposed to the hazard may be possible. Or, if the worker was informed to move the extension cord or to not place it in the aisle, then a misconduct defense may be used**.**

IV. **What if the citation was classified incorrectly?**
If it is believed that sufficient evidence supports a reclassification or withdrawal of the citation then a contest should be seriously considered. If the conduct of the Compliance Officer is in question then a contest may be in order. Conference with an attorney is strongly recommended.

V. **What is the impact of the first set of citations?**
The first set of citations provides the basis for a history. These citations remain on the books for 5 years which means the Compliance Officer will search the history to see if previous citations were issued. The only criteria is whether or not a previous citation was issued.

VI. **Is it likely that we'll face additional inspections in the face of a violation?**
Once citations are issued, a future inspection can be expected. If a citation for $5,000 was initially issued a repeat could be $10,000, up to $50,000. A decision to contest this citation must consider that the defense is the fact the citation is not a repeat AND the citation is not properly issued. This defense posture is very difficult and costly.

DEFENSE

I. **What kind of defense is available?**
Once the citations are issued the burden of proof for any defense of the citations belongs to the employers.

II. **The affirmative defense of infeasibility can be used if evidence and proof can be shown that it was impossible to comply with a standard or if compliance with the standard would create a greater hazard.**
In any event, the burden of proof means that the actions taken to not comply did NOT expose employees to a serious hazard.

III. **The second type of affirmative defense is employee or supervisor misconduct or an isolated event.**

IV. **The burden of proof is a high level of accurate information/evidence that a rule was established, communicated to employees, employees trained, active evidence of enforcement of the rules, etc.**

V. **Finally, a defense of sorts that demonstrates that the Compliance Officer's evidence is inaccurate or incomplete**.

VI. PENALTIES

I. **As the history of citations increases, the probability and severity of high penalties in the future is multiplied.**

Module 2-2: Emergency Planning & Emergency Response Procedures

Activity 1: Discussion: Emergency Plan

DISCUSSION! Compose an emergency plan for the classroom.

Include:

- Conditions that will activate the plan
- Chain of command
- Emergency functions and who will perform them
- Specific evacuation procedures, including routes and exits
- Procedures for accounting for personnel, customers, and visitors

Module 2-3: Disciplinary Policy & Employer Responsibilities

Activity 1: Work Policies

What are some disciplinary policies in place at your work?

I. _____

II. _____

III. _____

IV. _____

V. _____

What are some disciplinary actions that you would change, add, or eliminate at work? Why?

I. _____

II. _____

III. _____

IV. _____

V. _____

GROUP DISCUSSION!

List three inviolable rules that you feel are important

I. _____

II. _____

III. _____

Module 3: Safety & Injury Prevention Plan

Introduction

The Safety & Injury Prevention Plan (SIPP) Program has been made possible by the Susan Harwood Training Grant Program, which supports training and education programs for workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in their workplaces.

SIPP has been specially designed to provide businesses with the tools to develop a customized, comprehensive written safety and health program.

We will cover a lot of material in this course, preparing you to have the tools, knowledge, and resources to fully craft your SIPP.

Module 3: Safety & Injury Prevention Plan

Quiz 1: Your Legal Duties & Responsibilities

Take the True/False Quiz to determine your understanding of your legal duties and responsibilities in workplace health and safety.

As an employer, what are your duties and responsibilities, according to HRS-12-110-2?

I. Have a written safety and health program (employers with fewer than 25 employees are exempt). **TRUE or FALSE**

II. The written safety and health program should encourage employee involvement in its structure and operation and in decisions that affect their safety and health. **TRUE or FALSE**

III. The written safety and health program should assign and communicate responsibilities to managers and supervisors only. **TRUE or FALSE**

IV. The written safety and health program should provide a reliable system for employees to notify management personnel or safety and health committee members of conditions that appear hazardous. **TRUE or FALSE**

V. In terms of safe work practices, employers are responsible for notifying employees of practices, but are not responsible for making sure employees understand such practices. **TRUE or FALSE**

VI. The employer shall eliminate or control all existing hazards within the workplace in a timely manner. **TRUE or FALSE**

VII. Employers must ensure managers make periodic in-house safety and health inspections so that new or previously missed hazards can be identified. **TRUE or FALSE**

VIII. In regards to safety and health training program, the employer shall develop and institute a safety and health training program for all employees, as well as training supervisors and managers on their responsibilities assigned to them under the program. **TRUE or FALSE**

Module 3: Safety & Injury Prevention Plan

Activity 1: Management Commitment

What are the most important components of your company Safety Policy?

How does your business communicate to employees that your management is committed to safety?

How do you know that your employees recognize your commitment to safety?

Module 3: Safety & Injury Prevention Plan

Activity 2: Safety and Health Responsibilities

I. How do your managers communicate in a way that prioritizes safety to the team?

II. What are some responsibilities that you have assigned (or will assign) to your Managers? Supervisors? Employees?

Module 3: Safety & Injury Prevention Plan

Activity 3: Safety Committee

I. What is the purpose of **<u>your</u>** Safety Committee?

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_____

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_____

_____

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II. In considering logistics of your Safety Committee and Employee Safety Meetings (i.e. how representatives are selected to join, length of terms, structure—i.e. do you have a chairperson and/or record-keeper, time/frequency), what are some ideas that work best for your company?

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Module 3: Safety & Injury Prevention Plan

Activity 4: Hazard Recognition & Hazard Control

DISCUSSION

Record keeping can often feel burdensome on employers, managers, and employees. Discuss with the class, particularly those participants who have long-standing and effective Safety & Health plans, methods to reduce the strain. Consider record keeping as it applies to Employee's Injury/Illness Reports, Incident Investigation, and Safety Inspection Procedures.

Note pages are available at the end of this Workbook.

I. What Safety Rules should be implemented that are specific to your workplace?

_____

_____

_____

_____

_____

II. When considering the above, what Personal Protective Equipment must be made available?

_____

_____

_____

_____

_____

_____

Appendix 1: Answers

Worksite Analysis: Spot the Hazards (Page 13)

Observations: The make-shift ramp and make-shift tent, saw horse on the left and the flimsy wood brace on the right side, the spot where the ramp meets the wall: it's not easy for a worker to transition from the ramp to the scaffold, no one is wearing a hardhat, the worker in the window isn't wearing a fall protection harness, tools and clutter are all over the ground, creating trip hazards, the bags of mortar outside of the "tent" are trip hazards

Introduction to OSHA (page 16)

Purpose of OSHA: Congress created OSHA to assure safe and healthful conditions for workers by setting and enforcing standards and providing training, outreach, education and compliance assistance. The OSH Act requires, employers to provide a safe and healthful workplace for workers.

What rights do you have through OSHA? (Choose all that apply)

a) **Right to a safe workplace** b) Health insurance c**) Right to complain or request hazard correction from employer d) Right to know about hazardous chemicals** e) Vacation hours
   All but b) health insurance and e) vacation hours

What responsibilities do employers have under OSHA? (Choose all that apply)

a) **Keep records of injuries and illnesses b) Provide and pay for most PPE c) Provide medical exams and access to their exposure and medical records d) Provide training required by OSHA standards**
   (All of the above)

Rights & Responsibilities Under OSH ACT

Worker Rights

- Right to a safe and healthful workplace
- Right to know about hazardous chemicals
- Right to information about injuries and illnesses in your workplace
- Right to complain or request hazard correction from employer
- Right to training
- Right to hazard exposure and medical records
- Right to file a complaint with OSHA
- Right to participate in an OSHA inspection
- Right to be free from retaliation for exercising safety and health rights
- Worker responsibilities

Employer Responsibilities

- Provide a workplace free from recognized hazards and comply with OSHA standards
- Provide training required by OSHA standards
- Keep records of injuries and illnesses
  - Set up a reporting system
  - Provide copies of logs, upon request
  - Post the annual summary
  - Report within 8 hours any accident resulting in a fatality or the hospitalization of 3 or more workers
- Provide medical exams when required by OSHA standards and provide workers access to their exposure and medical records
- Not discriminate against workers who exercise their rights under the Act (Section 11(c))
- Post OSHA citations and abatement verification notices
- Provide and pay for PPE

Appendix 2: Quiz Answers:

Your Legal Duties & Responsibilities

All TRUE except for the below:

3. The written safety and health program should assign and communicate responsibilities to managers and supervisors only.
   FALSE- Assign and communicate responsibilities for all aspects of the safety and loss prevention program to managers, supervisors, **and employees** so that they all know and understand what is expected of them in the implementation of the program. Source: HRS-12-110-2-b-1-B-(v)

5. In terms of safe work practices, employers are responsible for notifying employees of practices, but are not responsible for making sure employees understand such practices.
   FALSE- The employer shall ensure that practices **are understood by all employees** and are underscored through training, positive reinforcement, correction of unsafe performance, and, if necessary, through a clearly defined and communicated disciplinary system. Source: HRS-12-110-2-b-2-(B)

6. The employer shall eliminate or control all existing hazards within the workplace in a timely manner.
   FALSE- The employer shall eliminate or control **all existing and potential** hazards within the workplace in a timely manner. Source: HRS-12-110-2-b-2-(A)

7. Employers must ensure managers make periodic in-house safety and health inspections so that new or previously missed hazards can be identified.
   FALSE- The employer shall conduct periodic in -house §12-110 4 safety and health inspections so that new or previously missed hazards or failures in engineering, work practice, and administrative controls are identified. The in-house inspections will be conducted by individuals who are trained to recognize hazardous conditions, as members of the safety and health committee or a person designated and trained by the employer for the facility's safety and health program. Source: HRS-12-110-2-b-3

Appendix 3: Job Safety Analysis Template

Job Safety Analysis		
Job:		
Analysis By: Date:	Reviewed By: Date:	Approved By: Date:
Sequence of Steps	Potential Accidents or Hazards	Preventive Measures

Appendix 4: Site Safety Inspections

CONSTRUCTION SUPERVISOR SAFETY INSPECTION CHECKLIST

Date:		**Job No.(s):**	
Location:		**Crew Member:**	
Supervisor:			

ITEM	**COMMENTS/ CORRECTIVE ACTION**
Housekeeping (Garbage, cleanliness, electrical cords, ladders)	
Drinking water/ sanitation requirements/first aid kit	
Electrical (such as proper grounding, lock & tag and GFCI [good condition, inspected])	
Proper personal protective equipment (PPE)	
Walking/working surfaces (tripping hazards, slippery surfaces, floor holes)	
Electrical tools (guards in place; good condition, stored properly)	
Cranes/ rigging equipment (for example: slings, properly stored and inspected)	
Excavation (properly sloped or shored; permits; inspections; barricaded daily)	
Flammables/combustibles (fire extinguishers, welding and cutting equipment)	
Hot work (Personal Protective Equipment, permit, combustibles, flammables protected)	

Material Safety Data Sheets onsite with containers labeled	
Scaffold system fully assembled; tags; inspections; fully planked guardrails	
Proper barricading/ warning signs (trenches, fuel areas, storage construction sites)	
Fire extinguishers (monthly inspection, accessible, on mechanized equipment)	
COMMENTS	

Appendix 5: Sample Equipment Safety Inspection Checklist

CONSTRUCTION EQUIPMENT INSPECTION CHECKLIST
Boom lift-Scissor-Fork Trucks

PROJECT/TASK:		**COMPANY:**
DATE:	**TIME:**	**M T W Th F Sa Su** (Circle One)
Type of Inspection: (Check One)	☒ **Daily** ☐ **Incoming** ☐ **Outgoing**	
Make/Description:	**Model:**	**I.D. No:**
Inspected By: (Name and Signature)		

EQUIPMENT	Acceptable	Not Acceptable	N/A	COMMENTS AND ACTION TAKEN
Operation/Owners Manual				
Brakes				
Brake Lights				
Reverse Signal Alarm				
Horn/Air Horn				
Tires/Tracks				
Steering				
Seat Belt				
Operating Controls				
Fire extinguisher				
Lights				
Defroster				
Mirrors				
Instruments				
Coupling Devices				
Slope Indicator - Alarm				
Loose or missing parts				
Dents and damage				
Drive foreward / reverse				
Harness/ Lanyards/ tie off				
Latches/ doors				
Exhaust Systems				
Hitches and Safety Cables				
Hydraulic Lines/ Air Hoses				
Engine Oil Level				
Hydraulic Oil Level				
Rollover Equipment				
Cleanliness				
Comments:				Fuel Level: ¼ ½ ¾ F Hour Meter: Odometer:

Noted deficiencies must be approved by the Superintendent and/or Health and Safety Officer prior to operation.

This inspection form is to be filled out at the start of the work shift upon deliveries by the Equipment/Truck Operator to ensure that the equipment/truck is safe to operate and is free from apparent damage, which could cause failure while in use. Once completed, this form is to be given to the Site Superintendent or Safety Officer to be kept on file on-site. In all cases, consult the manufacturer's data to ensure compliance with all inspection criteria, which may not be indicated.

APPENDIX 6: Sample Construction Safety Inspection Checklist

Construction Safety Inspection Form

Name (print):					Phone:	ORG Code:			
Building/Location:						Date:			
Item	Yes	No	N/A	Fixed Date	Item	Yes	No	N/A	Fixed Date
Program Administration					**Material Storage/Handling**				
OSHA Posting					Materials properly stored/stacked				
Emergency numbers/contacts posted					Dust protection adequate				
Hazard Communication Program					Loads lifted correctly				
Daily/Weekly safety meetings held					**Excavations & Shoring**				
Housekeeping/sanitation					Shoring proper for soil & depth				
Work areas orderly					Adjacent structures properly shored				
Adequate lighting					Necessary ladders provided				
Hand washing/toilet facilities					Excavation barricaded				
Passage, entry & walkways clear					Spoil set back at least 2 feet				
Clean eating/dining area					Equipment away from edge				
Fire Prevention					Equipment ramps adequate				
Fire extinguishers available					**Ladders**				
Correct extinguishers for job					Ladders in good condition				
No smoking posted and enforced					Side rails extend 36" above landing				
Electrical/Utility					Proper for job & secure				
Electrical hazards posted					Ladders fully open when in use				
Drop cords protected					**Scaffolding**				
Underground electrical lines staked					Equipment in good condition				
Lockout procedures utilized					Scaffold is tied to structure				
Access to breaker box clear					Guardrails, top, mid, toe boards in place				
Underground gas lines staked					Connections sound & secure				
Hand & Power Tools					Planking cleats in place				
Hand tools in good working condition					Worker protected from falling objects				
Cords in good condition					**Welding & Cutting**				
All mechanical safeguards in place					Screen & shields in place				
Proper tools utilized for each job					Electrical equipment grounded				
Tools grounded or double insulated					Compressed gas cylinders secure/upright				
Heavy Equipment					Proper personnel protection utilized				
Operation manuals available					Fire extinguishers immediately available				
Brakes, lights, signals & alarms operable					Welding cables in good condition				
Wheels chocked when necessary					**Personal Protective Equipment**				
Seat belts worn					Hardhats worn				
Daily inspections documented					Gloves available & used				
Barricades & Fencing					Steel toe footwear				
Site fenced					Eye protection utilized				
Roadways & sidewalks fenced					Ear protection utilized				
Floor openings planked or barricaded					Safety belts & lanyards utilized				
Access/traffic controlled					Respirators & masks utilized				

Appendix 8: Safety & Health Program Assessment Checklist

Assess your Safety and Health Program, using your own checklist or the ones in this section.

SAFETY AND HEALTH PROGRAM AUDIT TOOL

SECTION 1: MANAGEMENT LEADERS

Requirement	Not Implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Management implements and communicates a written policy supporting the safety and health program.					
Management defines specific goals and expectations for the program, and plans to achieve the goals.					
Management allocates appropriate resources (funds and time) to accomplish goals and manage the program.					
Management assigns responsibility and accountability for implementing and maintaining the program.					

Requirement	Not Implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
All workers know who has been assigned responsibility for the program.					
Management integrates safety and health into planning and budgeting processes.					
Management recognizes worker contributions to workplace safety and health.					
Management routinely demonstrates visible commitment to the program.					

SECTION 2: WORKER PARTICIPATION

Requirement	Not Implemented	Partially Implemented	Implemented with only Minor Deficiencies	Fully Implemented	Evidence of Implementation
Workers are encouraged to participate in the program, have the means to participate, and feel comfortable participating and providing input on safety and health issues.					
Workers are able to participate without encountering language, skill or education barriers; restrictions on participating during work time; or fear of retaliation or discrimination.					
Workers are assigned roles or are otherwise involved in *all* aspects of the program.					
Workers have access to information they need to understand safety and health hazards and control measures in the workplace.					
Workers know how to report an injury, illness, hazard, or concern, including good catches/near misses.					
Workers consistently report					

Requirement	Not Implemented	Partially Implemented	Implemented with only Minor Deficiencies	Fully Implemented	Evidence of Implementation
injuries, illnesses, hazards, and concerns, including good catches/near misses.					
Reports of injuries, illnesses, hazards, or other concerns are acknowledged promptly.					
Reports of injuries, illnesses, hazards, or other concerns are resolved promptly, after seeking worker input.					

SECTION 3: HAZARD IDENTIFICATION AND ASSESSMENT

Requirement	Not Implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Written materials such as injury logs, safety data sheets, medical reports, workplace inspection results, incident investigation reports, and manufacturers' literature are reviewed to help identify hazards.					
The workplace is inspected regularly to identify conditions that pose or could pose a safety concern. Inspections cover all areas and activities and include plant and transportation vehicles.					
The workplace is evaluated to identify worker exposure to health hazards.					

Requirement	Not Implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Incidents (including close calls/near misses) are investigated to identify any hazards previously unrecognized or inadequately controlled. Investigations focus on identifying the root cause(s) of each incident.					
Hazards associated with emergencies and non-routine operations are identified.					
All identified hazards are characterized with respect to the severity of potential outcomes, likelihood an event or exposure will occur, and number of workers who might be exposed.					

Requirement	Not Implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Interim controls are adopted while permanent controls are being determined.					
all serious and recognized hazards are addressed immediately, while remaining hazards are prioritized for further control.					

SECTION 4: HAZARD PREVENTION AND CONTROL

Requirement	Not implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Options for controlling hazards are identified using sources such as OSHA, NIOSH, industry best practices, and input from workers.					
Responsibility for installing or implementing controls is assigned to persons with power or ability to implement the controls.					
Controls are selected according to the "hierarchy of controls", emphasizing in order of priority: elimination, substitution, engineering controls, administrative controls, and PPE.					
A hazard control plan is used to plan and prioritize controls, and track and verify their installation.					
Responsibility for installing or implementing controls is assigned to persons with power or ability to implement the controls.					

Requirement	Not Implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Interim controls are used when permanent controls cannot be immediately implemented.					
Controls are in place to protect workers during emergencies and non-routine operations.					
Once installed, controls are monitored to ensure workers understand their use and application and to verify they are effective.					
Controls are inspected and maintained					

SECTION 5: EDUCATION AND TRAINING

Requirement	Not implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Managers, supervisors and workers understand the elements of the safety and health program and how to participate in it.					
Employers, managers and supervisors understand: fundamental concepts of hazard identification and control; procedures for responding to workers' reports of injuries, illnesses and incidents; incident investigation techniques; their responsibilities under the OSH act; and workers' rights guaranteed under the act.					
Workers understand the employers' responsibilities under the program.					
Each worker understands his or her own role in the program.					
Workers know who to contact with concerns or questions, and understand the procedures for reporting injuries, incidents, hazards, and concerns.					

Requirement	Not Implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Workers know they have a right to participate in the program and report injuries without fear of retaliation or discrimination					
Workers can ask questions, receive answers, and provide feedback during and after training.					
Employers, managers, and supervisors understand their responsibilities under the OSH Act; procedures for responding to workers' reports of injury, illness or concern; techniques for identifying and controlling hazards; and fundamentals of incident investigation.					
Supplemental training is provided when a change in the workplace could introduce new or increased hazards.					
Supplemental training is provided when a worker is assigned a new task or given a new assignment.					
Training is provided in a language and at a literacy level that all workers can understand.					

SECTION 6: PROGRAM EVALUATION AND IMPROVEMENT

Requirement	Not implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Performance indicators are used to track progress towards program goals.					
Performance is tracked using both lagging and leading indicators.					
Performance data is analyzed and shared with workers.					
An initial review and subsequent annual reviews evaluate the program to ensure it is fully implemented and functioning as planned.					
Workers are involved in all program review activities.					
The program is modified as needed to correct shortcomings.					

SECTION 7: COMMUNICATION AND COORDINATION FOR HOST EMPLOYERS, CONTRACTORS AND STAFFING AGENCIES

Requirement	Not implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Before coming onsite, the host employer and any contractors or staffing agencies determine which among them will implement and maintain the various parts of the safety and health program.					
Before coming onsite all contractors, staffing agencies and their workers are informed of the hazards that may be present, the controls in place to address the hazards, and who to contact to report an injury, illness or concern.					
Before coming onsite, the host employer provides contractors and staffing agencies the opportunity to conduct site visits or inspections and to review injury and illness records and other safety and health information.					

Requirement	Not implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Before coming onsite, contractors or staffing agencies inform the host employer of any hazards arising from their work onsite, the controls in place to address the hazards, and who to contact if they have a safety concern.					
Host employers communicate with contractors and staffing agencies to determine which will implement and maintain the various parts of the safety and health program.					
A mechanism is established to exchange information about hazards present in the workplace and measures in place to prevent or control them. for all contractors to use to report injuries, hazards, and concerns.					
Host employers include any safety-related specifications and qualifications requirements for contractors and staffing agencies in contracts and bid documents.					

Requirement	Not implemented	Partially implemented	Implemented with only minor deficiencies	Fully implemented	Evidence of implementation
Host employers coordinate with contractors and staffing agencies to ensure work is planned and scheduled to minimize impacts on safety.					
Workers know they have a right to participate in the program and report injuries without fear of retaliation or discrimination					
Temporary workers are adequately trained and equipped before arriving at the worksite.					
Safety and health policies and procedures of host employers, contractors and staffing agencies are consistent and understood by all workers onsite.					
Host employers and staffing agencies ensure enough trained and equipped workers are available and with enough lead time.					
Management from the host employer and staffing agencies are available to address day-to-day coordination issues related to safety.					

Source: https://www.osha.gov/shpguidelines/docs/SHP_Audit_Tool.pdf

Appendix 9: Incident Investigations: A Guide for Employers

With an effective safety and health management program in place, all the involved parties are aware of the roles they play during the investigation. This helps the transition from emergency response and site safety to preserving the scene and documenting the incident. This is the time an employer's incident investigation program's written plan goes into effect and the incident investigation begins.

Step 1. PRESERVE/DOCUMENT THE SCENE

Preserve the Scene: Preserve the scene to prevent material evidence from being removed or altered; investigators can use cones, tape, and/or guards.

Document the Scene: Document the incident facts such as the date of the investigation and who is investigating. Essential to documenting the scene is capturing the injured employee's name, injury description, whether they are temporary or permanent, and the date and location of the incident. Investigators can also document the scene by video recording, photographing and sketching.

Step 2. COLLECT INFORMATION

Incident information is collected through interviews, document reviews and other means. The Appendix provides a checklist to use to help ensure all information pertinent to the incident is collected.

In addition to interviews, investigators may find other sources of useful information. These include:

- Equipment manuals
- Industry guidance documents
- Company policies and records
- Maintenance schedules, records and logs
- Training records (including communication to employees)
- Audit and follow-up reports
- Enforcement policies and records
- Previous corrective action recommendations

Interviews can often yield detailed, useful information about an incident. Since memories fade, interviews must be conducted as promptly as possible: preferably as soon as things have settled down a bit and the site is both secure and safe. The sooner a witness is interviewed, the more accurate and candid his/her statement will be.

An incident investigation always involves interviewing and possibly re-interviewing some of the same or new witnesses as more information becomes available, up to and including the highest levels of management. Carefully question witnesses to solicit as much information as possible related to the incident. Since some questions will need to be designed around the interviewee, each interview will be a unique When interviewing injured workers and witnesses it is crucial to reduce their possible fear and anxiety, and to develop a good rapport. When conducting interviews, investigators should:

- Conduct the interview in the language of the employee/interviewee; use a translator if needed
- Clearly state that the purpose of the investigation and interview is fact-finding, not fault-finding
- Emphasize that the goal is to learn how to prevent future incidents by discovering the root causes of what occurred
- Establish a climate of cooperation, and avoid anything that may be perceived as intimidating or in search of someone to blame for the incident
- Let employee know that they can have an employee representative (e.g., labor representative), if available/appropriate
- Ask the individuals to recount their version of what happened
- Not interrupt the interviewee
- Take notes and/or record the responses; interviewee must give permission prior to being recorded
- Have blank paper and or sketch available for interviewee to use for reference
- Ask clarifying questions to fill in missing information
- Reflect back to the interviewees the factual information obtained; correct any inconsistencies
- Ask the individuals what they think could have prevented the incident, focusing on the conditions and events preceding the injury

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Step 3. DETERMINE ROOT CAUSES

The root causes of an incident are exactly what the term implies: The underlying reasons why the incident occurred in a workplace. Root causes generally reflect management, design, planning, organizational, and/or operational failings (e.g., employees were not trained adequately; a damaged guard had not been repaired).

- Determining the root cause is the result of persistently asking “why”
- Determining the root cause is the most effective way to ensure the incident does not happen again

Finding the root causes goes beyond the obvious proximate or immediate factors; it is a deeper evaluation of the incident. This requires persistent “digging”, typically by asking “Why” repeatedly. Conclusions such as “worker was careless” or “employee did not follow safety procedures” don’t get

at the root causes of the incident. To avoid these incomplete and misleading conclusions in the investigative process, investigators need to continue to ask “why?” as in, “Why did the employee not follow safety procedures?” If the answer is “the employee was in a hurry to complete the task and the safety procedures slowed down the work”, then ask, “Why was the employee in a hurry?” The more and deeper “why?” questions asked, the more contributing factors are discovered and the closer the investigator gets to the root causes. If a procedure or safety rule was not followed, why was the procedure or rule not followed? Did production pressures play a role, and, if so, why were production pressures permitted to jeopardize safety? Was the procedure out-of-date or safety training inadequate? If so, why had the problem not been previously identified, or, if it had been identified, why had it not been addressed?

It cannot be stressed enough that a successful incident investigation must always focus on discovering the root causes. Investigations are not effective if they are focused on finding fault or blame. If an investigation is focused on finding fault, it will always stop short of discovering the root causes, because it will stop at the initial incident without discovering their underlying causes. The main goal must always be to understand how and why the existing barriers against the hazards failed or proved insufficient, not to find someone to blame.

The questions listed below are examples of inquiries that an investigator may pursue to identify contributing factors that, in turn, can lead to root causes:

- If a procedure or safety rule was not followed, why was the procedure or rule not followed?
- Was the procedure out of date or safety training inadequate? Was there anything encouraging deviation from job procedures such as incentives or speed of completion? If so, why had the problem not been identified or addressed before?
- Was the machinery or equipment damaged or did it fail to operate properly? If so, why?
- Was a hazardous condition a contributing factor? If so, why was it present? (E.g., defects in equipment/tools/materials, unsafe condition previously identified but not corrected, inadequate equipment inspections, incorrect equipment used or provided, improper substitute equipment used, poor design or quality of work environment or equipment)
- Was the location of equipment/materials/worker(s) a contributing factor? If so, why? (E.g. employee not supposed to be there, insufficient workspace, “error-prone” procedures or workspace design)
- Was lack of personal protective equipment (PPE) or emergency equipment a contributing factor? If so why? (E.g., PPE incorrectly specified for job/task, inadequate PPE, PPE not used at all or used incorrectly, emergency equipment not specified, available, properly used, or did not function as intended)
- Was a defect in the management program a contributing factor? If so, why? (E.g., a culture of improvisation to sustain production goals, failure of supervisor to detect or report hazardous condition or deviation from job procedure, supervisor accountability not understood, supervisor or worker inadequately trained, failures to initiate corrective actions recommended earlier)

Step 4. IMPLEMENT CORRECTIVE ACTIONS

The investigation is not complete until corrective actions are implemented that address the root causes of the incident. Implementation should entail program level improvements and should be supported by senior management.

Note that corrective actions may be of limited preventive value if they do not address the root causes of the incident. Throughout the workplace, the findings and how they are presented will shape perceptions and subsequent corrective actions. Superficial conclusions such as "Bob should have used common sense," and weak corrective actions such as “Employees must remember to wear PPE,” are unlikely to improve the safety culture or to prevent future incidents.

In planning corrective actions and how best to implement them, employers may find that some root causes will take time and perseverance to fix. Persisting in implementing substantive corrective actions, however, will not only reduce the risk of future incidents but also improve the company’s safety, morale and its bottom line.

Specific corrective actions address root causes directly; however, some corrective actions can be general, across-the-board improvements to the workplace safety environment. Sample global corrective actions to consider are:

- Strengthening/developing a written comprehensive safety and health management program
- Revising safety policies to clearly establish responsibility and accountability
- Revising purchasing and/or contracting policies to include safety considerations
- Changing safety inspection process to include line employees along with management representatives.

Source: https://www.osha.gov/dte/IncInvGuide4Empl_Dec2015.pdf

Appendix 10: Documenting Incident Reports

OSHA's Sample List of Items to Use to Conduct Investigation

Camera
Charged Batteries (for phones, cameras, equipment, etc.)
Video / Audio recorder
Measuring devices in various sizes
Leveling rod
Clipboard and writing pad
Pens, pencils, markers
Graph paper
Incident investigation forms
Flashlight
tape
Photo marking cones
Personal protective equipment: Gloves, hat, eyewear, ear plugs, face mask, etc.
Magnifying glass
High visibility plastic tapes to mark off area
First aid kit
Latex gloves
(Various types: bags, jars, containers, etc.)
Identification tags
Strings, stakes, warning
Carpenters ruler
Hammer

- Paint stick (yellow/black)
- Chalk (yellow/white)
- Protractor
- Clinometer
- Sampling [holding] containers with seals
- Straight-edge ruler (Can be used as a scale reference in photos)
- Variety of tape: Scotch, masking, duct
- Compass

Tips for Video Documentation:

- Video the scene as soon as possible; doing this early on will pick up details that may later add valuable information to the investigation
- Scan slowly 360 degrees left and right to establish location
- Narrate what is being taped, and describe objects, size, direction, location, etc.
- If vehicles were involved, record direction of travel, going and coming

Source:
https://www.osha.gov/dte/IncInvGuide4Empl_Dec2015.pdf

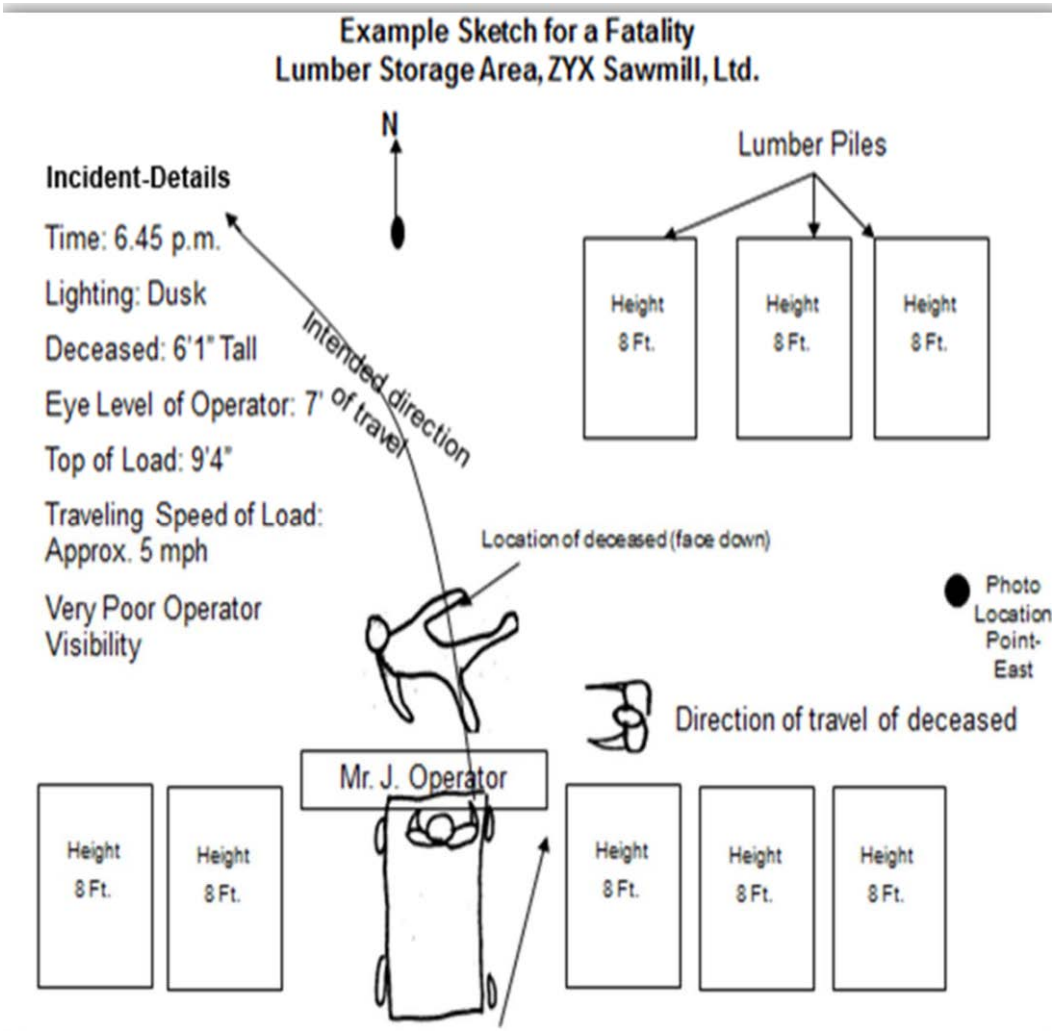
Tips for Photograph Documentation:

- Always make notes about the photos taken
- Start by taking distance shots first then move in to take closer photos of the scene
- Take photos at different angles (from above, 360 degrees of scene, left, right, rear) to show the relationship of objects and minute and/or transient details such as ends of broken rope, defective tools, drugs, wet areas, or containers
- Take panoramic photos to help present the entire scene, top to bottom - side to side
- Take notes on each photo; these should be included in the incident investigation file with the photos
- Identify and document the photo type, date/time/location taken, subject, weather conditions, measurements, etc.
- Indicate the locations where photos were taken on sketches
- Identify the person taking the photo
- Place an item of known dimensions in the photo to add a frame of reference and scale (e.g., a penny, a pack of cards)

Appendix 11: Advice for Sketching Incident Scenes

1. Make sketches large; at least 8” x 10” and clear, be sure to print legibly
2. Include “Incident Details” (i.e., time, date, injured, location, conditions, etc.)
3. Include measurements (i.e. distances, heights, lengths, etc.) and use permanent points (e.g., telephone pole, building) to clearly present the measurements
4. Indicate directions – N= North; E= East; W= West; S= South
5. Make notes on sketch to provide additional information such as the photo location and/or where people were at the time of the incident

Note: The sketch can be used during interviews to help interviewees identify their location before, during or after the incident



Source: https://www.osha.gov/dte/IncInvGuide4Empl_Dec2015.pdf

Appendix 12: Incident Investigation Checklist

Investigators should be sure their investigation answers the following questions

WHO?	WHAT?	WHY?
Who was injured? Who witnessed the incident? Who was working with the employee? Who had instructed/assigned the employee? Who else was involved? Who else can help prevent recurrence?	What was the incident? What was the injury? What was the employee doing? What had the employee been told to do? What tools was the employee using? What machine was involved? What operation was the employee performing? What instructions had the employee been given? What specific precautions were necessary? What specific precautions was the employee given? What protective equipment should have been used? What protective equipment was the employee using? What had other persons done that contributed to the incident? What problem or questions did the employee encounter? What did the employee or witnesses do when the incident occurred? What extenuating circumstances were involved? What did the employee or witnesses see? What will be done to prevent recurrence? What safety rules were violated? What new rules are needed?	Why was the employee injured? Why and what did the employee do? Why and what did the other person do? Why wasn't protective equipment used? Why weren't specific instructions given to the employee? Why was the employee in the position? Why was the employee using the tools or machine? Why didn't the employee check with the supervisor when the employee noted things weren't as they should be? Why did the employee continue working under the circumstances? Why wasn't the supervisor there at the time?
WHERE?		**HOW?**
Where did the incident occur? Where was the employee at the time? Where was the supervisor at the time? Where were fellow workers at the time? Where were other people who were involved at the time? Where were witnesses when incident occurred?		How did the employee get injured? How could the employee have avoided it? How could fellow workers have avoided it? How could supervisor have prevented it - could it be prevented?
WHEN?		
When did the incident occur? When did the employee start on that job? When was the employee assigned on the job? When were the hazards pointed out to the employee? When was the employee's supervisor last check on job progress? When did the employee first sense something was wrong?		

Source: https://www.osha.gov/dte/IncInvGuide4Empl_Dec2015.pdf

APPENDIX 13: OSHA Hazardous Materials

1910.120 App B: General Description and Discussion of the Levels of Protection and Protective Gear

This appendix sets forth information about personal protective equipment (PPE) protection levels, which may be used to assist employers in complying with the PPE requirements of this section.

As required by the standard, PPE must be selected which will protect employees from the specific hazards, which they are likely to encounter during their work on-site.

Selection of the appropriate PPE is a complex process, which should take into consideration a variety of factors. Key factors involved in this process are identification of the hazards, or suspected hazards; their routes of potential hazard to employees (inhalation, skin absorption, ingestion, and eye or skin contact); and the performance of the PPE materials (and seams) in providing a barrier to these hazards. **The amount of protection provided by PPE is material-hazard specific.** That is, protective equipment materials will protect well against some hazardous substances and poorly, or not at all, against others. In many instances, protective equipment materials cannot be found which will provide continuous protection from the particular hazardous substance. In these cases, the breakthrough time of the protective material should exceed the work durations.

Other factors in this selection process to be considered are matching the PPE to the employee's work requirements and task-specific conditions. The durability of PPE materials, such as tear strength and seam strength, should be considered in relation to the employee's tasks. The effects of PPE in relation to heat stress and task duration are a factor in selecting and using PPE. In some cases, layers of PPE may be necessary to provide sufficient protection, or to protect expensive PPE inner garments, suits, or equipment.

The more that is known about the hazards at the site, the easier the job of PPE selection becomes. As more information about the hazards and conditions at the site becomes available, the site supervisor can make decisions to up-grade or downgrade the level of PPE protection to match the tasks at hand.

The following are guidelines, which an employer can use to begin the selection of the appropriate PPE. As noted above, the site information may suggest the use of combinations of PPE selected from the different protection levels (i.e., A, B, C, or D) as being more suitable to the hazards of the work. It should be cautioned that the listing below does not fully address the performance of the specific PPE material in relation to the specific hazards at the job site, and that PPE selection, evaluation and re-selection is an ongoing process until sufficient information about the hazards and PPE performance is obtained.

Part A. Personal protective equipment is divided into four categories based on the degree of protection afforded. (See Part B of this appendix for further explanation of Levels A, B, C, and D hazards.)

I. Level A - To be selected when the greatest level of skin, respiratory, and eye protection is required.

The following constitute Level A equipment; it may be used as appropriate;

1. Positive pressure, full face-piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA, approved by the National Institute for Occupational Safety and Health (NIOSH).
2. Totally-encapsulating chemical-protective suit.
3. Coveralls
4. Long underwear.
5. Gloves, outer, chemical-resistant.
6. Gloves, inner, chemical-resistant.
7. Boots, chemical-resistant, steel toe, and shank.
8. Hard hat (under suit)

9. Disposable protective suit, gloves, and boots (depending on suit construction, may be worn over totally-encapsulating suit).

II. Level B - The highest level of respiratory protection is necessary but a lesser level of skin protection is needed.

The following constitute Level B equipment; it may be used as appropriate.

1. Positive pressure, full-face piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).
2. Hooded chemical-resistant clothing (overalls and long-sleeved jacket; coveralls; one or two-piece chemical-splash suit; disposable chemical-resistant overalls).
3. Coveralls
4. Gloves, outer, chemical-resistant.
5. Gloves, inner, chemical-resistant.
6. Boots, outer, chemical-resistant steel toe and shank.
7. Boot-covers, outer, chemical-resistant (disposable)
8. Hard hat
9. [Reserved]
10. Face shield

III. Level C - The concentration(s) and type(s) of airborne substance(s) is known and the criteria for using air-purifying respirators are met.

The following constitute Level C equipment; it may be used as appropriate.

1. Full-face or half-mask, air-purifying respirators (NIOSH approved).
2. Hooded chemical-resistant clothing (overalls; two-piece chemical-splash suit; disposable chemical-resistant overalls).
3. Coveralls
4. Gloves, outer, chemical-resistant.
5. Gloves, inner, chemical-resistant.
6. Boots (outer), chemical-resistant steel toe and shank
7. Boot-covers, outer, chemical-resistant (disposable)
8. Hard hat.
9. Escape mask
10. Face shield

IV. Level D - A work uniform affording minimal protection: used for nuisance contamination only.

The following constitute Level D equipment; it may be used as appropriate:

1. Coveralls.
2. Gloves
3. Boots/shoes, chemical-resistant steel toe and shank.
4. Boots, outer, chemical-resistant (disposable)
5. Safety glasses or chemical splash goggles
6. Hard hat
7. Escape mask
8. Face shield

Part B. The types of hazards for which levels A, B, C, and D protection are appropriate are described below:

I. Level A - Level A protection should be used when:

1. The hazardous substance has been identified and requires the highest level of protection for skin, eyes, and the respiratory system based on either the measured (or potential for) high concentration of atmospheric vapors, gases, or particulates; or the site operations and work functions involve a high potential for splash, immersion, or exposure to unexpected vapors, gases, or particulates of materials that are harmful to skin or capable of being absorbed through the skin,
2. Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible; or
3. Operations must be conducted in confined, poorly ventilated areas, and the absence of conditions requiring Level A have not yet been determined.

II. Level B protection should be used when:

1. The type and atmospheric concentration of substances have been identified and require a high level of respiratory protection, but less skin protection.
2. The atmosphere contains less than 19.5 percent oxygen; or
3. The presence of incompletely identified vapors or gases is indicated by a direct-reading organic vapor detection instrument, but vapors and gases are not suspected of containing high levels of chemicals harmful to skin or capable of being absorbed through the skin.

Note: This involves atmospheres with IDLH concentrations of specific substances that present severe inhalation hazards and that do not represent a severe skin hazard; or that do not meet the criteria for use of air-purifying respirators.

III. Level C - Level C protection should be used when:

1. The atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect or be absorbed through any exposed skin;
2. The types of air contaminants have been identified, concentrations measured, and an air-purifying respirator is available that can remove the contaminants; and
3. All criteria for the use of air-purifying respirators are met.

IV. Level D - Level D protection should be used when:

1. The atmosphere contains no known hazard; and
2. Work functions preclude splashes, immersion, or the potential for unexpected inhalation of or contact with hazardous levels of any chemicals.

Note: As stated before, combinations of personal protective equipment other than those described for Levels A, B, C, and D protection may be more appropriate and may be used to provide the proper level of protection.

Source: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=9767

Protecting Employees from Workplace Hazards

- OSHA regulations require employers to protect their employees from workplace hazards such as machines, work procedures, and hazardous substances that can cause injury
- Employers must institute all feasible engineering and work practice controls to eliminate and reduce hazards before using PPE to protect against hazards

Eye and Face Protection

Criteria

- Protect against specific hazard(s) encountered by employees
- Comfortable to wear
- Must not restrict vision or movement
- Durable and easy to clean and disinfect
- Must not interfere with the function of any other required PPE
- Meet requirements of ANSI Z87.1-1989 for devices purchased after July 5, 1994, and ANSI Z87.1-1968 for devices purchased before that date

Eye Protection for Employees Who Wear Eyeglasses

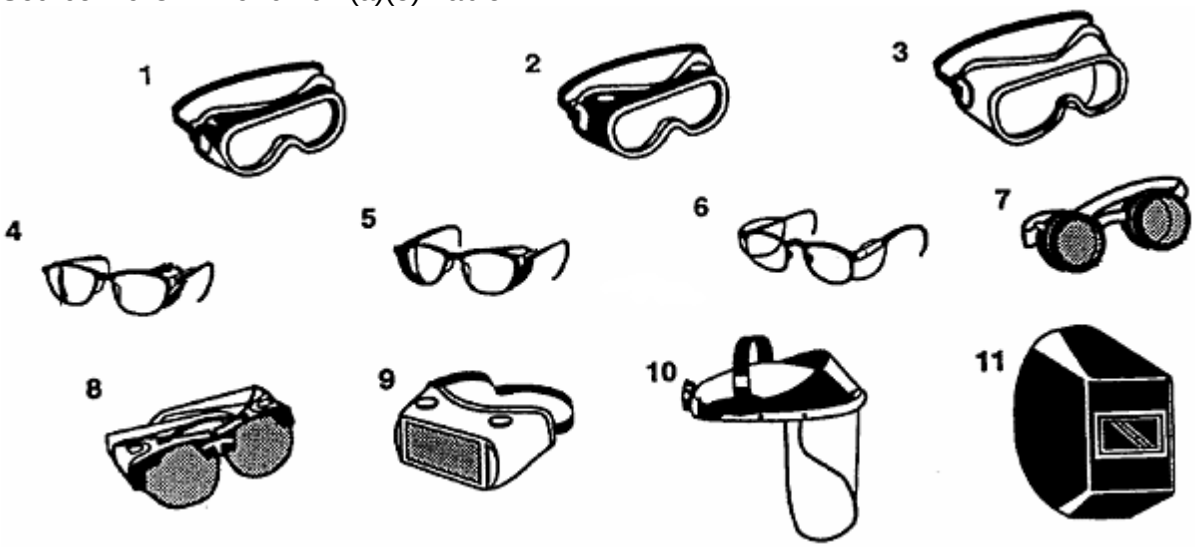
- Prescription spectacles, with side shields and protective lenses meeting requirements of ANSI Z87.1
- Goggles that can fit comfortably over corrective eyeglasses without disturbing their alignment
- Goggles that incorporate corrective lenses mounted behind protective lenses

Face Shields

- Do not protect employees from impact hazards
- Use face shields in combination with goggles or safety spectacles when you must protect your employees from impact hazards, even in the absence of dust or potential splashes

Figure 1. Recommended Eye and Face Protectors

Source: 29 CFR 1926.102 (a)(5) Table E-1



Eye and face protectors are identified below by number and type. Refer to Table 1 for recommended usage applications.

1. GOGGLES, Flexible Fitting, Regular Ventilation
2. GOGGLES, Flexible Fitting, Hooded Ventilation
3. GOGGLES, Cushioned Fitting, Rigid Body
4. SPECTACLES, Metal Frame, With Sideshields*
5. SPECTACLES, Plastic Frame, With Sideshields*
6. SPECTACLES, Metal-Plastic Frame, With Flat-Fold Side shields*
7. WELDING GOGGLES, Eyecup type, Tinted Lenses**

7A. CHIPPING GOGGLES, Eyecup Type, Clear Safety Lenses (not illustrated)

8. WELDING GOGGLES, Eyecup type, Tinted Plate Lens**

8A. CHIPPING GOGGLES, Coverspec Type, Clear Safety Lenses (not illustrated)

9. WELDING GOGGLES, Coverspec Type, Tinted Plate Lens**
10. FACE SHIELD (Available With Plastic or Mesh Window, Tinted/Transparent)
11. WELDING HELMETS**

*These are also available without side shields for limited use requiring only frontal protection.
** See Table 2, Filter Lens Shade Numbers for Protection Against Radiant Energy.

Table 1. Eye and Face Protector Selection Guide
Source: 29 CFR 1926.102(a)(5)

Operation	**Hazards**	**Recommended protectors: (see Figure 1)**
Acetylene-burning, Acetylene-cutting, Acetylenewelding	Sparks, harmful rays, molten metal, flying particles	7,8,9
Chemical handling	Splash, acid burns, fumes	2,10 (for severe exposure add 10 over 2)
Chipping	Flying particles	1,3,4,5,6,7A, 8A
Electric (arc) welding	Sparks, intense rays, molten metal	9,11 (11 in combination with 4,5,6 in tinted lenses advisable)
Furnace operations	Glare, heat, molten metal	7,8,9 (for severe exposure add 10)
Grinding - light	Flying particles	1,3,4,5,6,10
Grinding - heavy	Flying particles	1,3,7A, 8A (for sever exposure add 10)
Laboratory	Chemical splash, glass	2 (10 when in breakage combination with 4,5,6)
Machining	Flying particles	1,3,4,5,6,10
Molten metals	Heat, glare, sparks, splash	7,8 (10 in combination with 4,5,6 in tinted lenses)
Spot welding	Flying particles, sparks	1,3,4,5,6,10

Classes of Hard Hats

Class A

- Used for general service (e.g., mining, building construction, shipbuilding, lumbering, manufacturing)
- Provide good impact protection but limited voltage protection

Class B

- Used for electrical work
- Protect against falling objects and high-voltage shock and burns

Class C

- Designed for comfort, offer limited protection
- Protect heads that might bump against fixed objects, but do not protect against falling objects or electrical shock

Foot and Leg Protection

Some of the potential hazards that would require foot and leg protection include:

- Heavy objects such as barrels or tools that might roll onto or fall on employees' feet
- Sharp objects such as nails or spikes that might pierce the soles or uppers of ordinary shoes
- Molten metal that might splash on feet or legs
- Hot or wet surfaces
- Slippery surfaces

Foot Protection Requirements

- Protective footwear purchased after July 5, 1994 must meet the requirements of ANSI Z41-1991
- Protective footwear purchased before that date must comply with ANSI Z41-1967

Foot and Leg Protection Choices

- **Leggings**. Protect lower legs and feet from heat hazards, like molten metal or welding sparks. Safety snaps allow leggings to be removed quickly.
- **Metatarsal Guards**. Strapped to outside of shoes to protect instep area from impact and compression. Made of aluminum, steel, fiber or plastic.
- **Toe Guards**. Fit over the toes of regular shoes to protect only the toes from impact and compression. Made of steel, aluminum, or plastic.

- **Combination Foot and Shin Guards**. May be used in combination with toe guards when greater protection is needed.
- **Safety Shoes**. These have impact-resistant toes and heat-resistant soles that protect against hot work surfaces common in roofing, paving, and hot metal industries.
    - May have metal insoles to protect against puncture wounds
    - May be designed to be electrically conductive for use in explosive atmospheres
    - May be designed to be electrically nonconductive to protect from workplace electrical hazards

Hand and Arm Protection

- When engineering and work practice controls fail to eliminate the risk of injury to your employees' hands or arms, protective gloves are the primary means of protecting their hands
- When the risk of injury includes the arm, protective sleeves, often attached to the gloves, may be appropriate
- Nature of the hazard(s) and the operation to be performed will determine your selection of gloves

Types of Gloves

- Durable work gloves made of metal mesh, leather or canvas
- Fabric and coated fabric gloves
- Chemical and liquid resistant gloves
- Insulating rubber gloves*

Asbestos gloves and asbestos linings **are prohibited**.
* Detailed requirements for selection and use of insulating rubber gloves for use against electrical hazards are provided in 29 CFR 1910.137, and are therefore not included in this discussion.

Metal Mesh, Leather, or Canvas Gloves

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

- **Leather Gloves**
    - Protect against sparks, moderate heat, blows, chips, and rough objects
    - Welders in particular need the durability of higher-quality leather gloves
- **Aluminized Gloves**
    - Provide reflective and insulating protection against heat
    - Usually used for welding, furnace, and foundry work
    - Require an insert made of synthetic materials that protect against heat and cold
    - Asbestos inserts are prohibited
- **Aramid Fiber Gloves**
    - Aramid is a synthetic material that protects against heat and cold
    - Many glove manufacturers use aramid fiber to make gloves that are cut- and abrasive-resistant and wear well
- **Other Synthetic Materials**
    - Several manufacturers make gloves with other synthetic fabrics that offer protection against heat and cold
    - Cut- and abrasive-resistant and may withstand some diluted acids
    - Do not stand up well against alkalis and solvents

Fabric and Coated Fabric Gloves

- Gloves made of cotton or other fabric protect against dirt, slivers, chafing, and abrasion but do not provide sufficient protection to be used with rough, sharp or heavy materials
- Cotton flannel gloves coated with plastic transform fabric gloves into general-purpose hand protection offering slip-resistant qualities
- Coated fabric gloves are used for tasks ranging from handling bricks and wire rope to handling chemical containers in laboratory operations
- For protection against chemical exposure hazards, always check with the manufacturer to determine the gloves' effectiveness against the specific chemicals and conditions in the workplace

Chemical and Liquid-Resistant Gloves

- Gloves made of rubber (latex, nitrile, or butyl), plastic, or synthetic rubber-like material such as neoprene protect workers from burns, irritation, and dermatitis caused by contact with oils, greases, solvents, and other chemicals
- Use of rubber gloves also reduces the risk of exposure to blood and other potentially infectious substances

Common Gloves Used for Chemical Protection

- **Butyl Rubber Gloves**
  - Protect against nitric acid, sulfuric acid, hydrofluoric acid, red fuming nitric acid, rocket fuels, and peroxide
  - Resist oxidation and ozone corrosion.
  - Resist abrasion and remain flexible at low temperatures.
- **Natural Latex or Rubber Gloves**
  - Comfortable wear and pliability along with their protective qualities make them a popular general purpose glove
  - Resist abrasions caused by sandblasting, grinding, and polishing and protect workers' hands from most water solutions of acids, alkalis, salts, and ketones
  - Hypoallergenic gloves, glove liners, and powerless gloves possible alternatives for those allergic to latex
- **Neoprene Gloves**
  - Good pliability, finger dexterity, high density, and tear resistance
  - Provide protection from hydraulic fluids, gasoline, alcohols, organic acids, and alkalis
- **Nitrile Rubber Gloves**
  - Provide protection from chlorinated solvents such as trichloroethylene and perchloroethylene
  - Intended for jobs requiring dexterity and sensitivity, yet stand up to heavy use even after prolonged exposure that cause other gloves to deteriorate
  - Resist abrasion, puncturing, snagging, and tearing

Body Protection

Workplace hazards that could injure your employees' bodies include the following:

- Intense heat
- Splashes of hot metals and other hot liquids
- Impacts from tools, machinery, and materials

- Cuts
- Hazardous chemicals
- Contact with potentially infectious materials, like blood
- Radiation

Types of Body Protection

- Vests
- Jackets
- Aprons
- Coveralls
- Surgical gowns
- Full body suits

Materials for Protective Clothing

- **Paper-Like Fiber**. Disposable suits made of this material provide protection against dust and splashes.
- **Treated Wool and Cotton**. Adapts well to changing workplace temperatures. Comfortable and fire resistant. Protects against dust, abrasions, and rough and irritating surfaces.
- **Duck**. Protects employees against cuts and bruises while they handle heavy, sharp, or rough materials.
- **Leather**. Often used against dry heat and flame.
- **Rubber, Rubberized Fabrics, Neoprene, and Plastics**. Provides protection against certain acids and other chemicals.

Hearing Protection

- Noise exposure depends on:
    - Level of sound, measured in decibels on the A-scale (dBA)
    - Duration of employee's exposure to sound of various levels throughout the work day
- Measured with noise dosimeter, which indicates daily noise dose in percent

When is Hearing Protection Required?

- As with other types of hazards, you must implement feasible engineering and work practice controls before resorting to PPE, in this case hearing protection
- OSHA's noise standard (29 CFR 1910.95) requires the use of hearing protection when the employee's noise exposure exceeds an 8-hour time-weighted average sound level (TWA) of 90 dBA (dose of 100 percent)
- Employees who are exposed to an 8-hour TWA of 85 dBA (dose of 50 percent) and who have measured hearing loss (as prescribed by the OSHA standard) are also required to wear hearing protection

Hearing Conservation Program (HCP)

- All employees whose noise exposures equal or exceed an 8-hour TWA of 85 dBA must be included in a HCP
- HCP is comprised of five basic elements:
    - Exposure monitoring
    - Audiometric testing
    - Hearing protection
    - Employee training
    - Recordkeeping

Monitoring

- Required to identify employees who are subjected to noise exposures of 85 dBA or more
- Must be repeated whenever change in production, process, equipment or controls increases noise exposures to extent that:
    - Additional employees may be over-exposed, or
    - Hearing protectors being used may be rendered inadequate

Audiometric Testing Program

- Monitors employee hearing acuity over time
- Includes baseline and annual audiograms and initiates training and follow-up procedures
- Tests must be conducted by a professional or trained technician in an appropriate test environment

Hearing Protection

- Must be made available to all employees exposed to an 8-hour TWA of 85 dBA or more
- Mandatory for those who have experienced hearing loss, defined as a "Standard Threshold Shift" in the OSHA standard
- Common types include ear plugs and earmuffs
- Hearing protector's attenuation capacity shown by its Noise Reduction Rating (NRR) on package
- Proper fit very important

Training

Annual training required in:

- Effects of noise
- Purpose, advantages, disadvantages, and attenuation characteristics of various types of hearing protectors
- Selection, fitting and care of protectors
- Purposes and procedures of audiometric testing

Recordkeeping

- Noise exposure records must be kept for 2 years
- Records of audiometric test results must be maintained for duration of affected employee's employment

Summary

- OSHA requires that you implement a PPE program to help you systematically assess the hazards in the workplace and select the appropriate PPE that will protect workers from those hazards
- As part of this PPE program, you must do the following:
    - Assess the workplace for hazards
    - Implement engineering controls and work practices to control or eliminate these hazards to the extent feasible
    - Select appropriate PPE to protect employees from hazards that cannot be eliminated or controlled through engineering controls and work practices
    - Inform your employees why the PPE is necessary and when it must be worn
    - Train your employees how to use and care for the selected PPE and how to recognize PPE deterioration and failure
    - Require your employees to wear the selected PPE in the workplace

Source: https://www.osha.gov/dte/library/ppe_assessment/ppe_assessment.html (Emphasis added)

Appendix 14: Building your customized SIPP

Your customized Safety & Injury Prevention Plan (SIPP) provides a written safety and health plan. Put some time and thought into the following plan to ensure a safe workplace environment.

Safety & Injury Prevention Plan

Your Written Safety & Health Program

(Enter your Company Name here)

PLEASE CUSTOMIZE THIS SAFETY AND HEALTH PROGRAM ACCORDING TO YOUR WORKPLACE. REMEMBER, YOUR WRITTEN SAFETY AND HEALTH PROGRAM CAN ONLY BE EFFECTIVE IF IT IS PUT INTO PRACTICE!

Tailor your own Safety & Health Program plan to your actual business operations and potential hazards that your employees might encounter.

Your Program must be implemented in order to be effective. It also must be updated as changes occur in your business (new equipment, new processes, etc.).

Safety & Health Program

(Customize by adding your company name here)

Management Commitment

Safety Policy

(Customize by adding your company name here) places a high value on the safety of its employees. **(Customize by adding your company name here)** is committed to providing a safe workplace for all employees and has developed this program for injury prevention to involve management, supervisors, and employees in identifying and eliminating hazards that may develop during our work process.

It is the basic safety policy of this company that no task is so important that an employee must violate a safety rule or take a risk of injury or illness in order to get the job done.

Employees are required to comply with all company safety rules and are encouraged to actively participate in identifying ways to make our company a safer place to work.

Supervisors are responsible for the safety of their employees and as a part of their daily duties must check the workplace for unsafe conditions, watch employees for unsafe actions and take prompt action to eliminate any hazards.

Management will do its part by devoting the resources necessary to form a safety committee composed of management and elected employees. We will develop a system for identifying and correcting hazards. We will plan for foreseeable emergencies. We will provide initial and ongoing training for employees and supervisors. And, we will establish a disciplinary policy to ensure that company safety policies are followed.

Safety is a team effort – Let us all work together to keep this a safe and healthy workplace.

(Customize by adding any additional policy items that you may have and/or deleting any that do not apply to your company.)

Safety and Health Responsibilities

Manager Responsibilities

1. Ensure that a plant/store wide safety committee is formed and is carrying out its responsibilities as described in this program.
2. Ensure that sufficient employee time, supervisor support, and funds are budgeted for safety equipment, training and to carry out the safety program.
3. Evaluate supervisors each year to make sure they are carrying out their responsibilities as described in this program.
4. Ensure that incidents are fully investigated and corrective action taken to prevent the hazardous conditions or behaviors from happening again.
5. Ensure that a record of injuries and illnesses is maintained and posted as described in this program.
6. Set a good example by following established safety rules and attending required training.
7. Report unsafe practices or conditions to the supervisor of the area where the hazard was observed.

(Customize by adding any additional management responsibilities that you may have and/or deleting any that do not apply to your company.)

Supervisor Responsibilities

1. Ensure that each employee you supervise has received an initial orientation before beginning work.
2. Ensure that each employee you supervise is competent or receives training on safe operation of equipment or tasks before starting work on that equipment or project.
3. Ensure that each employee receives required personal protective equipment (PPE) before starting work on a project requiring PPE.
4. Do a daily walk-around safety-check of the work area. Promptly correct any hazards you find.
5. Observe the employees you supervise working. Promptly correct any unsafe behavior. Provide training and take corrective action as necessary. Document employee evaluations.
6. Set a good example for employees by following safety rules and attending required training.
7. Investigate all incidents in your area and report your findings to management.
8. Talk to management about changes to work practices or equipment that will improve employee safety.

(Customize by adding any additional supervisor responsibilities that you may have and/or deleting any that do not apply to your company.)

Employee Responsibilities

1. Follow safety rules described in this program, OSHA safety standards and training you receive.
2. Report unsafe conditions or actions to your supervisor or safety committee representative promptly.
3. Report all injuries to your supervisor promptly regardless of how serious.
4. Report all near-miss incidents to your supervisor promptly.
5. Always use personal protective equipment (PPE) in good working condition where it is required.
6. Do not remove or defeat any safety device or safeguard provided for employee protection.
7. Encourage co-workers by your words and example to use safe work practices on the job.
8. Make suggestions to your supervisor, safety committee representative or management about changes you believe will improve employee safety.

(Customize by adding any additional employee responsibilities that you may have and/or deleting any that do not apply to your company.)

Employee Participation

Safety Committee

We have formed a safety committee to help employees and management work together to identify safety problems, develop solutions, review incident reports and evaluate the effectiveness of our safety program. The committee is made up of management-designated representatives and one employee-elected representative each from the office, factory and outside sales divisions of our company.

- Employees in each division will elect from among themselves a representative to be on the committee. If there is only one volunteer or nomination, the employees will approve the person by voice vote at a short meeting called for that purpose. If there is more than one volunteer or nomination, a secret paper ballot will be used to elect the representative.
- Elected representatives will serve for one year before being re-elected or replaced. If there is a vacancy then an election will be held before the next scheduled meeting to fill the balance of the term.
- In addition to the employee-elected representatives, management will designate no more than three representatives but a minimum of one who will serve until replaced by management.
- A chairperson will be selected by majority vote of the committee members each year. If there is a vacancy, the same method will be used to select a replacement.

- In addition to the committee responsibilities explained above, duties of safety committee members include:
    - A monthly self-inspection of the area they represent
    - Communicating with the employees they represent on safety issues and
    - Encouraging safe work practices among co-workers.
- The regularly scheduled meeting time is 7:30 am for one hour on the first Thursday of each month, at the employee lunchroom. This may be changed by vote of the committee.
- A committee member will be designated each month to keep minutes on the attached minutes form. A copy will be posted on the employee bulletin board after each meeting. After being posted for one month, the minutes will be filed for one year. The minutes' form contains the basic monthly meeting agenda.

(Customize by adding any additional safety committee information that you may have and/or deleting any that do not apply to your company.)

Employee Safety Meetings

All employees are required to attend a monthly safety meeting held on the first Thursday of each month in the lunchroom. This meeting is to help identify safety problems, develop solutions, review incidents reports, provide training and evaluate the effectiveness of our safety program. Minutes will be kept on the attached minutes form. Meeting minutes will be kept on file for one year.

(Customize by adding any additional Employee Safety Meeting information that you may have and/or deleting any that do not apply to your company.)

Hazard Recognition

Record Keeping and Review

Employees are required to report any injury or work-related illness to their immediate supervisor regardless of how serious. Minor injuries such as cuts and scrapes can be entered on the first aid only log posted **(Customize by adding location of First Aid Only Log)**. The employee must use an "Employee's Injury/Illness Report Form" to report more serious injuries.

The supervisor will:

- Investigate a serious injury or illness using procedures in the "Incident Investigation" section below.
- Complete an "Incident Investigation Report" form.

- Give the “Employee’s Report” and the “Incident Investigation Report” to **(Add the name or title of the person to whom this information will be given.)**.

(Add the name or title of the responsible person) will:

- Determine from the Employee’s Report, Incident Investigation Report, and any workers’ compensation claim form associated with the incident, whether it must be recorded on the OSHA Injury and Illness Log and Summary according to the instructions for that form.
- Enter a recordable incident within six days after the company becomes aware of it.
- If the injury is not recorded on the OSHA log, add it to a separate incident report log, which is used to record non-OSHA recordable injuries and near misses.
- Each month before the scheduled safety committee meeting, make any new injury reports and investigations available to the safety committee for review, along with an updated OSHA and incident report log.

The safety committee will review the log for trends and may decide to conduct a separate investigation of any incident.

(Add the name or title of the responsible person) will post a signed copy of the OSHA log summary for the previous year on the safety bulletin board each February 1 until April 30. The log will be kept on file for at least 5 years. Any employee can view an OSHA log upon request at any time during the year.
(Customize by adding any additional Hazard Recognition policies that you may have and/or deleting any that do not apply to your company.)

Incident Investigation Procedure

If an employee dies while working or is not expected to survive, when three (3) or more employees are admitted to a hospital as a result of a work-related incident or there is property damage that is estimated to be in excess of $25,000, **(Customize by adding the name or title of person responsible for reporting to OSHA)** will contact their State or Federal Occupational Safety and Health Area Office within 8 hours after becoming aware of the incident. **(Add the name or title of the responsible person)** must talk with a representative of the department. During evenings and weekends, a message can be left on the answering machine. **(Add the name or title of the responsible person)** must report: the employer name, location and time of the incident, number of employees involved, the extent of injuries or illness, a brief description of what happened and the name and phone number of a contact person.

DO NOT DISTURB the scene except to aid in rescue or make the scene safe.

Whenever there is an incident that results in death or serious injuries that have immediate symptoms, a preliminary investigation will be conducted by the immediate supervisor of the injured worker(s), a person designated by management, an employee representative of the safety committee, and any other persons whose expertise would help the investigation.

The investigation team will take written statements from witnesses; photograph the incident scene and equipment involved. The team will also document as soon as possible after the incident, the condition of equipment and any anything else in the work area that may be relevant. The team will make a written “Incident Investigation Report” of its findings. The report will include a sequence of events leading up to the incident, conclusions about the incident and any recommendations to prevent a similar incident in the future. The report will be reviewed by the safety committee at its next regularly scheduled meeting.

When a supervisor becomes aware of an employee injury where the injury was not serious enough to warrant a team investigation as described above, the supervisor will write an "Incident Investigation Report" to accompany the "Employee's Injury/Illness Report Form" and forward them to **(Add the name or title of the responsible person)**.

Whenever there is an incident that did not but could have resulted in serious injury to an employee (a near-miss), the incident will be investigated by the supervisor or a team depending on the seriousness of the injury that would have occurred. The "Incident Investigation Report" form will be used to investigate the near-miss. The form will be clearly marked to indicate that it was a near miss and that no actual injury occurred. The report will be forwarded to the bookkeeper to record on the incident log.

An “Incident Investigation Checklist” form can be found in the Safety and Health Program Guide to help the supervisor carry out his/her responsibilities as described above.
(Customize by adding any additional Incident Investigation policies that you may have and/or deleting any that do not apply to your company.)

Safety Inspection Procedures

(Customize by adding your company name here) is committed to aggressively identifying hazardous conditions and practices, which are likely to result in injury or illness to employees. We will take prompt action to eliminate any hazards we find. In addition to reviewing injury records and investigating incidents for their causes, management and the safety committee will regularly check the workplace for hazards as described below:

> *Annual Site Survey* -- Once a year an inspection team made up of members of the safety committee will do a wall-to-wall walk through inspection of the entire worksite. They will write down any safety hazards or potential hazards they find. The results of this inspection will be used to eliminate or control obvious hazards, target specific work areas for more intensive

investigation, assist in revising the checklists used during regular monthly safety inspections and as part of the annual review of the effectiveness of our Safety and Health Program.

Periodic Change Survey -- We will assign a supervisor or form a team to look at any changes we make to identify safety issues. Changes include new equipment, changes to production processes or a change to the building structure. A team is made up of maintenance, production, and safety committee representatives. It examines the changed conditions and makes recommendations to eliminate or control any hazards that were or may be created as a result of the change.

Monthly Safety Inspection -- Each month, before the regularly scheduled safety committee meeting, safety committee representatives will inspect their areas for hazards using the standard safety inspection checklist. They will talk to co-workers about their safety concerns. Committee members will report any hazards or concerns to the whole committee for consideration. The results of the area inspection and any action taken will be posted in the affected area. Occasionally, committee representatives may agree to inspect each other's area rather than their own. This brings a fresh pair of eyes to look for hazards.

Job Hazard Analysis -- As a part of our on-going safety program, we will use a “Job Hazard Analysis” form to look at each type of job task our employees do. The supervisor of that job’s task or a member of the safety committee will do this analysis. We will change how the job is done as needed to eliminate or control any hazards. We will also check to see if the employee needs to use personal protective equipment (PPE) while doing the job. Employees will be trained in the revised operation and to use any required PPE. The results will be reported to the safety committee. Each job task will be analyzed at least once every two years, whenever there is a change in how the task is done or if there is a serious injury while doing the task.
(Customize by adding any additional safety self-inspection policies that you may have and/or deleting any that do not apply to your company.)

Hazard Prevention and Control

Eliminating Workplace Hazards

(Customize by adding your company name here) is committed to eliminating or controlling workplace hazards that could cause injury or illness to our employees. We will meet the requirements of state safety standards where there are specific rules about a hazard or potential hazard in our workplace. Whenever possible we will design our facilities and equipment to eliminate employee exposure to hazards. Where these engineering controls are not possible, we will write work rules that effectively prevent employee exposure to the hazard. When the above methods of control are not possible or are not fully effective we will require employees to use personal protective equipment (PPE) such as safety glasses, hearing protection, foot protection etc.

Basic Safety Rules

The following basic safety rules have been established to help make our company a safe and efficient place to work. These rules are in addition to safety rules that must be followed when doing particular jobs or operating certain equipment. Those rules are listed elsewhere in this program. Failure to comply with these rules will result in disciplinary action.

- Never do anything that is unsafe in order to get the job done. If a job is unsafe, report it to your supervisor or safety committee representative. We will find a safer way to do that job.
- Do not remove or disable any safety device! Keep guards in place at all times on operating machinery.
- Never operate a piece of equipment unless you have been trained and are authorized.
- Use your personal protective equipment whenever it is required.
- Obey all safety-warning signs.
- Working under the influence of alcohol or illegal drugs or using them at work is prohibited.
- Do not bring firearms or explosives onto company property.
- Smoking is only permitted outside the building away from any entry or ventilation intake.
- Horseplay, running and fighting are prohibited
- Clean up spills immediately. Replace all tools and supplies after use. Do not allow scraps to accumulate where they will become a hazard. Good housekeeping helps prevent injuries.

(Customize by adding any additional safety policies that you may have and/or deleting any that do not apply to your company.)

Job Related Safety Rules

We have established safety rules and personal protective equipment (PPE) requirements based upon a hazard assessment for each task listed below:

Work in or pass through any production area, for example the Machine shop or Paint shop

Required PPE:

- Safety glasses. Check prior to use for broken or missing components (such as side shields) and for scratched lenses. Safety glasses must have a "Z87.1" marking on the frame. If they are prescription glasses, the initials of the lens manufacturer must be stamped into the corner of the lens to show that they are safety glass lenses.

Work Rules:

- Walk within marked aisles.
- Do not distract or talk with employees when they are using a machine.

The following rules are included as an example only. You must customize this program by adding any additional job-specific safety rules that you may have and/or deleting any that do not apply to your company. Be sure to include the, location, and required PPE.

Work with Bench Grinders: Machine shop

Required PPE:

Eye protection (full-face shield with safety glasses under the shield).

Work Rules:

- Check that there is a gap between the tool rest and the wheel of no more than 1/8".
- Check that the upper wheel (tongue) guard has a gap of no more than 1/4".
- Check that the wheel edge is not excessively grooved. Dress the wheel if necessary.
- Do not grind on the face of the wheel.

Work with Ladders: All locations

Required PPE:

- Full body harness when working at greater than 25’ and both hands must be used to do the job. See the fall protection plan instructions described elsewhere in this program.

Work Rules:

- Before you use a ladder check it for defects such as loose joints, grease on steps, or missing rubber feet.
- Do not paint a ladder! You may hide a defect.
- Do not use a ladder as a brace, workbench or for any other purpose than climbing.
- Do not carry objects up or down a ladder if it will prevent you from using both hands to climb.
- Always face the ladder when climbing up or down.
- If you must place a ladder at a doorway, barricade the door to prevent its use and post a sign.
- Only one person is allowed on a ladder at a time.
- Always keep both feet on the ladder rungs except while climbing. Do not step sideways from an unsecured ladder onto another object.
- If you use a ladder to get to a roof or platform, the ladder must extend at least 3' above the landing and be secured at the top and bottom.
- Do not lean a stepladder against a wall and use it as a single ladder. Always unfold the ladder and lock the spreaders.
- Do not stand on the top step of a stepladder.
- Set a single or extension ladder with the base 1/4 of the working ladder length away from the support.

Lifting Tasks: All locations

Required PPE:

- Leather gloves – for sharp objects or surfaces
- Steel toe safety shoes in production and shipping areas (to be supplied by the employee) must be in good condition and be marked "ANSI Z41 C - 75"

Work Rules:

- Do not lift on slippery surfaces.
- Test the load before doing the lift.
- Get help if the load is too heavy or awkward to lift alone.
- Break the load down into smaller components if possible to provide a comfortable lift.
- Do not overexert!
- Make sure you have a good handhold on the load.
- Do not jerk the load or speed up. Lift the load in a smooth and controlled manner.
- Do not twist while lifting (especially with a heavy load). Turn and take a step.
- Keep the load close to the body. Walk as close as possible to the load. Pull the load towards you before lifting if necessary.
- Avoid long forward reaches to lift over an obstruction.
- Avoid bending your back backwards to loft or place items above your shoulder. Use a step stool or platform
- Do not lift while in an awkward position.
- *Use a mechanical device such as a forklift, hoist, hand truck or elevatable table whenever possible to do the lift or to bring the load up between the knees and waist before you lift.*
- Back injury claims are painful for the worker and expensive for the company. Lift safely!
- The signatures below document that the employee received training on how to lift safely.

Employee: _____ Training Date: _____

Trainer: _____

Disciplinary Policy

Employees are expected to use good judgment when doing their work and to follow established safety rules. We have established a disciplinary policy to provide appropriate consequences for failure to follow safety rules. This policy is designed not so much to punish as to bring unacceptable behavior to the employee's attention in a way that the employee will be motivated to make corrections. The following consequences apply to the violation of the same rule or the same unacceptable behavior:

First Instance -- Verbal warning, notation in employee file, and instruction on proper actions
Second Instance -- 1-day suspension, written reprimand, and instruction on proper actions
Third Instance -- 1-week suspension, written reprimand, and instruction on proper actions
Fourth Instance -- Termination of employment.

An employee may be subject to immediate termination when a safety violation places the employee or co-workers at risk of permanent disability or death.

(The above rules are included as an example only. You must customize this program by adding any disciplinary rules that you may have and/or deleting any that do not apply to your company.)

Equipment Maintenance

The following departments have machinery and equipment that must be inspected or serviced on a routine basis. A checklist/record to document the maintenance items will be maintained and kept on file for the life of the equipment.

Machine shop

Equipment	Interval	Location of record
Ederer 20-ton Crane	Monthly	Maintenance file cabinet
Omaha press brake	Weekly	Folder attached to the press

Vehicles

Equipment	Interval	Location of record
1986 Toyota Forklift A68710*	Daily	File cabinet in the garage
1992 Ford Taurus LST385	Monthly	Vehicle glove box

*Forklifts are required to be examined daily prior to being placed into service or after each shift if used on a round-the-clock basis.

(The above rules are included as an example only. You must customize this section by adding any equipment maintenance rules that you may have and/or deleting any that do not apply to your company. Be sure to include the equipment, location, and required PPE.

Emergency Planning

Emergencies

What will we do in an emergency?

In case of fire

An evacuation map for the building is posted **(Customize by adding location, if this applies to your company)**. It shows the location of exits, fire extinguishers, first aid kits, and where to assemble outside **(Customize by adding meeting location for your location)**. A copy of the map is attached to this program.

All employees will receive training on how to use of fire extinguishers as part of their initial orientation. A fire evacuation drill will be conducted once a year during the first week of April.

(Customize by adding fire drill and fire extinguisher training information as it pertains to your business.)

- If you discover a fire:
- Tell another person immediately. Call or have them call 911 and a supervisor.
- If the fire is small (such as a wastebasket fire) and there is minimal smoke, you may try to put it out with a fire extinguisher.
- If the fire grows or there is thick smoke, do not continue to fight the fire.

Tell other employees in the area to evacuate.

- Go to the designated assembly point outside the building (i.e. north parking lot)
- If you are a supervisor notified of a fire in your area: Tell your employees to evacuate to the designated assembly location. Check that all employees have been evacuated from your area.
- Verify that 911 has been called.
- Determine if the fire has been extinguished. If the fire has grown or there is thick smoke, evacuate any employees trying to fight the fire.
- Tell supervisors in other areas to evacuate the building.
- Go to the designated assembly point and check that all your employees are accounted for. If an employee is missing, do not re-enter the building! Notify the responding fire personnel that an employee is missing and may be in the building.

(Customize the above rules by adding procedures in case of fire as it pertains to your business.)

In case of a hurricane, tsunami or other events where Hawai'i civil defense will likely issue a warning.

While severe weather will be continuously tracked, unless otherwise informed, all operations will continue as usual until we receive notification from Hawai'i civil defense. When the sirens are sounded, all supervisors will immediately report to the Main building conference room to receive further instructions on releasing employees from work. Prior to leaving, supervisors shall ensure that:

- The gas to the building is shut off. A wrench is available at the rear entrance to turn off the gas shut-off outside the building. All supervisors will be trained in the gas shut-off procedure.
- All electric power is turned off at the circuit breakers, to prevent equipment damage in the event of a power surge or other electrical fault. Only emergency lights will continue in operation.
- All personnel are cleared from the premises. Following shutdown and evacuation, no one may re-enter the premises until Civil Defense sounds the all-clear.

In case of earthquake

Hawai'i has had earthquakes in the past. There will be no advance warning. The shock will be your only warning. Because there are power lines over the north parking lot, the south parking lot is the designated assembly location for earthquake evacuation. We have bolted tall narrow storage racks to the floors, walls or to each other to provide a wide base to help reduce the potential for collapse. A wrench is available at the rear entrance to turn off the gas shut-off outside the building. All supervisors will be trained in the gas shut off procedure. An earthquake drill will be conducted each year during the first week of September. In the event of an earthquake:

(Customize by adding earthquake drill and evacuation information as it pertains to your business.)

If you are inside a building:

- Drop under a desk or table, cover your head and hold on. Stay away from windows, heavy cabinets, bookcases or glass dividers.
- When the shaking stops, **(Customize by adding name or title of responsible person)** are to check for damage and available evacuation routes then begin an evacuation of their area to the designated assembly location. **(Customize by adding meeting location for your location)**
- Evacuation should proceed as quickly as possible since there may be aftershocks.
- Supervisors must account for each employee in their work group as quickly as possible.
- *First aid certified employees should check for injuries and help evacuate injured employees. Do not attempt to move seriously injured persons unless they are in immediate danger of further injury.*
- If a gas odor is in the building, tell a supervisor to turn off the gas at the main. Open windows.
- Supervisors and first aid employees must not re-enter the building once evacuation is complete.

- Do not approach or touch downed power lines or objects touched by downed power lines.
- Do not use the phone except for emergency use.
- Turn on a radio and listen for public safety instructions.

If you are outside: Stand away from buildings, trees, telephone and electric lines.

If you are on the road: Drive away from underpasses/overpasses. Stop in a safe area. Stay in the vehicle.

(Customize by adding any additional rules and deleting any that do not apply to your business.)

If an injury occurs

- A first aid kit is kept **(Customize by adding the location of first aid supplies in your business)**. Also, each company vehicle is equipped with a first aid kit located in the glove box or under the driver's seat. Members of the safety committee check these kits monthly. An inventory of each kit is taped to the inside cover of the box. If you are injured, promptly report it to any supervisor. **(Customize by adding any additional locations of first aid supplies or deleting the above information if it does not apply to your business.)**
- All supervisors are required to have first aid cards. Other employees may have been certified. A list of current first aid and CPR certified supervisors and employees is posted on the safety bulletin board along with the expiration dates of their cards. **(Customize by adding the location of first aid trained personnel in your business)**
- In case of serious injury, do not move the injured person unless absolutely necessary. Only provide assistance to the level of your training. Call for help. If there is no response, call 911.

Aids/HIV and Hepatitis B are the primary infectious diseases of concern in blood. All blood should be assumed to be infectious. These diseases can both be deadly. Employees are not required to perform first aid as part of their job duties. In the event of a bleeding injury where first aid is needed, use gloves if possible to prevent exposure to blood or other potentially infectious materials. The injured person can often help by applying pressure to the wound. Gloves and a mouth barrier for rescue breathing are available in the first aid kits. If you are exposed to blood while giving first aid wash immediately with soap and water and report the incident to a supervisor. The appropriate follow-up procedures will be initiated, including medical evaluation, counseling, Hepatitis B vaccine and blood testing of the source person if possible. For further information, refer to HIOSH standard, §12-205.1 in Part 8 (Health Standards), Title 12 of the Hawai'i Administrative Rules.

Safety and Health Training and Education

Safety Training

Training is an essential part of our plan to provide a safe work place at **(Customize by adding your company name here)**. To ensure that all employees are trained before they start a task that requires training, we have a training coordinator whose name is posted on the safety bulletin board. **(Customize by inserting the name or title of the person responsible for training in your company.)** That person is responsible to verify that each employee has received an initial orientation by his or her supervisor, has received any training needed to do the job safely and that the employee file documents the training. The coordinator will make sure that an outline and materials list is available for each training course we provide:

Course	Who must attend
Basic Orientation	All employees (given by the employee's supervisor)
Safe Lifting	Any employee who lifts more than 20 pounds
Chemical Hazards (General)	All employees
Chemical Hazards (Specific)	An employee who uses or is exposed to a particular chemical
Fire extinguisher safety	All employees
Respirator Training	Employees who use a respirator
Forklift Training	Employees who operate a forklift
Lockout Training (Awareness)	All employees
Lockout Training (Advanced)	Employees who service equipment
Welding Safety	Employees who operate the arc welder

(Customize by adding additional training required in your business and deleting any of the above training that does not apply.)

Safe Lifting Training Course Outline

Required Materials:

- DVD Lifting and Carrying, HIOSH DVD60. Reserve at least two weeks in advance. Call (808) 586-9131
- Safe Lifting rules from Safety and Health Program

Outline: 1-hour class

- Talk about injury statistics related to lifting and handling materials.
- Talk about some injuries that have occurred in our work place.
- Show DVD
- Answer questions from participants about DVD
- Go over safe lifting rules in the Safety and Health Program
    - Demonstrate techniques.
    - Discuss mechanical lifting aids such as hoists and carts that are available in our workplace.
- Have employees sign their names to the training roster.

You are at the end of the Sample Safety and Health Program.
Be sure that you have added all of the required information to make it specific to your business operation. If you have any further information to add, please do so.

Notes