Sample Safety Program Elements for Structural Steel Fabricators
This Manual was prepared by a committee of industry professionals with specific experience in the application of current safety standards and accepted safety practices to the fabricated structural steel industry. It is presented as an aid to fabricator management in developing a safety manual for their individual companies. However, this Manual is specifically limited in scope and is not intended to provide legal advice. Each fabricator that chooses to develop a company safety program remains responsible to determine that all regulatory requirements that apply to the individual company are contained in the company safety program, regardless of whether such requirements may or may not be included in this Manual or may differ from the examples set out in this Manual.

Further, all examples provided in this Manual are not necessarily applicable to all steel fabrication facilities. The facilities and practices of each individual company, and the provisions of any proposed company safety program, should be thoroughly audited by a qualified safety professional and qualified legal counsel with particular expertise in employment law and occupational safety and health regulations before that safety program is implemented. The publisher of this Manual specifically disclaims any responsibility for the correctness or effectiveness of this sample safety manual as applied to any individual company safety program or for updating any information contained herein subsequent to the date of publication of this Manual.

In particular, fabricator management, its safety professional and its legal counsel should be aware and pay particular attention to the following:

- The examples utilized in this sample manual are based on and reflect federal laws. Individual fabricators will also be subject to state laws, which may vary from, or contain provisions in addition to, provisions contained in federal law.
- Fabricators that are subject to collective bargaining agreements must exercise care to assure that any provisions contained in their company’s individual safety manual (such as, by way of example and not by way of limitation, the activities of safety committees, safety awards programs, and utilization of safety equipment) comply with the requirements of the company’s collective bargaining agreements and/or other employment policies and practices.
- The provisions of any company Safety Manual must comply with applicable state and federal regulations applicable to confidentiality of medical records and information (including ADA and HIPPA) and be consistent with the company’s overall records retention policies. Provisions related to employee medical monitoring and surveys must also comply with the ADA and any similar, applicable state law.
- The provisions of the manual related to personal protective equipment (PPE) must be consistent with general employment policies in company handbooks or in the collective bargaining agreement, if applicable, including policies related to paying for PPE.
- Chapter 10, dealing with occupational injury management, involves a variety of HR issues under not only OSHA, but also under state worker’s compensation statutes, short term disability and long term disability plans, the FMLA, the ADA, HIPPA, ERISA, Title VII and the Age Discrimination in Employment Act, as well as collective bargaining agreements, employment practices and policies in company handbooks or manuals, and a variety of state laws. Accordingly, some companies may choose to administer occupational injury management exclusively through its Human Relations department and omit this subject matter from any safety manual that is distributed to all employees.
- Likewise, some companies may consider drug and alcohol testing and blood borne pathogen policies, as being beyond the scope of a safety manual that is distributed to all employees, and to assign administration of these programs exclusively to the company’s HR department.
Table of Contents

Chapter One ......................................................................................................................... 1
GENERAL INTRODUCTION TO SAFETY MANUAL .......................................................... 1
  Purpose of the Manual, Safety Policy, and Assignment of Safety Responsibility .......... 1
  STATEMENT OF COMPANY SAFETY POLICY ............................................................ 1
  ASSIGNMENT OF RESPONSIBILITIES SAFETY RESPONSIBILITY MEMO .......... 3
  SAFETY RESPONSIBILITY ......................................................................................... 4

Chapter Two ......................................................................................................................... 7
RECORDS, REPORTING AND DOCUMENTATION ......................................................... 7
  RECORDING INJURIES AND ILLNESSES .................................................................. 7
  Reporting ...................................................................................................................... 8
  record keeping postings ............................................................................................... 9
  OTHER DOCUMENTATION ....................................................................................... 9

Chapter Three ...................................................................................................................... 13
EMPLOYEE TRAINING ....................................................................................................... 13
  Purpose ...................................................................................................................... 13
  COMPONENTS OF TRAINING .................................................................................. 13
  BASIC TRAINING PROGRAMS ................................................................................ 14
  TRAINING PROGRAM REQUIREMENTS .................................................................. 15
  PUNCH SAFETY ORIENTATION INSTRUCTIONS .................................................... 22
  TRAINING EVENT DOCUMENTATION .................................................................... 25

Chapter Four ......................................................................................................................... 26
General Safety Rules .......................................................................................................... 26
  Code of Safe Practices ............................................................................................... 26
  Rules Related to All Personnel in the Shop ............................................................... 26
  Rules Related to Use of Tools and Equipment ......................................................... 27
  Rules Related to Specific Equipment ....................................................................... 28
    Bench Grinding ....................................................................................................... 28
    Drill Press ............................................................................................................... 28
    Punch Press ........................................................................................................... 28
    Ironworker ............................................................................................................ 29
    Punching ............................................................................................................... 29
    Bending ............................................................................................................... 30
    Saw ...................................................................................................................... 30
    Shear .................................................................................................................... 30
    Threading Machine .............................................................................................. 30
    Robot ..................................................................................................................... 31
  Visitors and On-Site Subcontractors ....................................................................... 31
  Company handout for visitors .................................................................................. 31

Chapter Five ......................................................................................................................... 33
Personal Protective Equipment (PPE) ................................................................................. 33
  Purpose ...................................................................................................................... 33
  References ............................................................................................................... 33
  Responsibilities ....................................................................................................... 33
  PPE Requirements ................................................................................................. 33
Chapter Six.................................................................................................................. 36
Safety Practices for Selected Processes ................................................................. 36
  Purpose......................................................................................................................... 36
  New or revised processes .......................................................................................... 36
  Painting ......................................................................................................................... 36
  Storage of paints and solvents .................................................................................... 37
  Respirator Program ..................................................................................................... 37
  Industrial Powered Truck ............................................................................................ 39
  Vehicle Safety Policy ................................................................................................... 40

Chapter Seven........................................................................................................... 45
Facility Evaluation and Emergency Preparedness ..................................................... 45
  Emergency Preparedness ......................................................................................... 45
  Emergency Action Plan ............................................................................................. 45
  Procedures for Evacuation ......................................................................................... 45
  Safety and Health Inspections ................................................................................... 48
  Shop and Department Inspections ............................................................................. 48
  Checklist for Shop Safety and Health Inspection ....................................................... 49
  New Equipment Acceptance ...................................................................................... 53
  NEW EQUIPMENT/PROCESS SAFETY CHECKLIST ............................................... 54
  OSHA Inspections ...................................................................................................... 55

Chapter Eight........................................................................................................... 56
  safety Committee ......................................................................................................... 56
  Safety Committee Mission ......................................................................................... 56
  Committee Membership ............................................................................................. 56
  Meetings ....................................................................................................................... 56
  Balanced Responsibility .............................................................................................. 56
  Safety Committee Functions ...................................................................................... 56
  Model Agenda ............................................................................................................ 57

Chapter Nine ............................................................................................................... 58
  Accident Investigation ............................................................................................... 58
  Purpose ......................................................................................................................... 58
  Policy ............................................................................................................................ 58

Chapter Ten ................................................................................................................. 69
  Occupational Injury Management ............................................................................. 69
  Purpose ......................................................................................................................... 69
  Responsibility .............................................................................................................. 69
  Injury Management .................................................................................................... 69
  Company Position on Returning to Work ................................................................. 70
  JOB FUNCTION EVALUATION ................................................................................. 71
  ATTENDING PHYSICIAN'S REPORT ......................................................................... 73
  Injury Management Checklist .................................................................................... 75

Chapter Eleven ........................................................................................................... 76
  Safety Recognition and Incentive Program ............................................................... 76
  Purpose ......................................................................................................................... 76

Chapter Twelve .......................................................................................................... 78
  Written Safety Program Elements (Statutory Programs) .......................................... 78

Sample Safety Program Elements for Structural Steel Fabrications
Appendix:

Statutory Fabricator Erection Requirements

Useful Forms

Control of Hazardous Energy: Lockout /Tagout ................................................................. 78
Purpose................................................................................................................................. 78
Management Responsibilities ............................................................................................ 78
Employee Responsibilities ................................................................................................. 78
General................................................................................................................................. 78
Sequence Of Lockout ........................................................................................................ 79
Absent Employee Procedures............................................................................................... 80
Emergency Safety Lock Removal ....................................................................................... 80
Group Lockout/Tagout.......................................................................................................... 81
Sample Energy Control (Lockout/Tagout) Procedure ......................................................... 82
Electrical safety .................................................................................................................. 90
Hazard Communications ................................................................................................... 101
confined space ................................................................................................................... 104
Substance Abuse ............................................................................................................... 112
Employee Drug/Alcohol Test For Cause Report ............................................................... 115
Blood-borne Pathogens...................................................................................................... 117
Ergonomics Backs and Soft Tissues .................................................................................. 120
Hearing Conservation Program ......................................................................................... 130

Appendix:............................................................................................................................. 134

Useful Forms .......................................................................................................................... 134

Employee Orientation .......................................................................................................... 134
Driver Qualification/Vehicle Inspection ............................................................................. 135
Powered Unit Inspection ..................................................................................................... 137
Trailer Inspection ................................................................................................................ 138
Monthly Crane Inspection .................................................................................................. 139
annual Crane Inspection .................................................................................................... 140
daily Crane Inspection ......................................................................................................... 141
Qualitative Fit Testing .......................................................................................................... 152
Energized Work Permit ...................................................................................................... 152

Statutory Fabricator Erection Requirements ........................................................................ 153


Sample Safety Program Elements for Structural Steel Fabrications
Chapter One
GENERAL INTRODUCTION TO SAFETY MANUAL

PURPOSE OF THE MANUAL, SAFETY POLICY,
AND ASSIGNMENT OF SAFETY RESPONSIBILITY

This company's manual on Safety, Health, and Loss Control serves to document policies and procedures to enable the company to implement an effective safety program throughout the organization.

The program contained in this manual has been established to:

- Actively promote the health and safety of employees, customers and others who may be affected by the company's business activities.
- Assure compliance with regulatory obligations.
- Assure that safety, health, and loss control programs are given the proper priority and attention, and are achieving the intended results.
- Coordinate safety, health, and loss control activities while maintaining consistency in procedures at the required level of performance.

STATEMENT OF COMPANY SAFETY POLICY

Our employees are our most valuable assets. It is our policy that every person is entitled to a safe and healthful place in which to work. The success of the company will depend not only on production and sales, but also how safely each job is performed. There is no job so important—nor any service so urgent—that we cannot take time to work safely.

Establishment and maintenance of a safe environment is the shared responsibility between the employer and employees at all levels of the organization. To this end, every reasonable effort will be made in achieving the goal of zero accidents, zero injuries and zero incidents.

We will maintain a safety and health program conforming to the best practices for steel fabrication. To be successful, such a program must embody the proper attitudes toward injury and illness prevention on the part of supervisors and employees. It also requires cooperation in all safety and health matters, not only between supervisors and employees, but also between employees and their co-workers. Only through such a cooperative effort can an effective safety and health program be established and preserved. Together both management and the employees need to adopt the attitude and behavior that safety is an integral part of our business, a primary goal and a primary consideration in the daily activities at <Company>.

The company will aggressively pursue a plan to minimize injuries and effect of injuries and return injured employees to active work duties as soon as possible.

The attached safety and loss control guidelines represent a wealth of practical experience tested in the safety-conscious environment of many successful projects. Implementing and adhering to these procedures will protect the well-being of our employees and company resources from harm or financial loss caused by accidents. Therefore, as a condition of employment by <Company>, each employee is required to abide by these procedures.

Because each project is unique, some of these procedures may need to be refined or expanded to meet the specific safety and loss control needs of a particular project. The <Plant Manager> and <Safety
Officer> may refine or expand these procedures as needed, with my approval. For more information on complying with specific safety policies and procedures, please contact the <Plant Manager>. Safety is as critical to <Company>'s operations as planning, scheduling, or billing—it is an integral part of our routine operations. Furthermore, managers of <Company> believe that accidents are preventable, and that it is up to each of us to ensure that we practice safety as a routine part of our daily work.

I consider the safety of our personnel to be of prime importance, and I expect your full cooperation in making our program effective.

<Name>
President/Owner
ASSIGNMENT OF RESPONSIBILITIES
SAFETY RESPONSIBILITY MEMO

TO: [Name and title of <Safety Officer>]  DATE: [Date prepared]

FROM: [Name and title of President/Owner]

SUBJECT: Assignment of Responsibility for Safety Program

In accordance with our company safety policy to provide a safe and healthy working environment, I assign to you the responsibility to develop and implement our company safety program.

Specifically you will carry out the following duties:

1. Develop rules of safe practices for each function of company operations.
2. Develop or adopt safe procedures for the operation of equipment consistent with the manufacturer’s operating instructions and applicable regulatory (standards) agencies, e.g., OSHA, ANSI.
3. Develop a system to encourage employees to report unsafe conditions.
4. Conduct a thorough investigation of each accident or incident, whether or not it results in an injury, to determine why it occurred and how to prevent reoccurrence.
5. Instruct supervisors in their safety responsibilities.
6. Develop a program of employee education about company policies and work practices.
7. Conduct scheduled periodic inspections of facilities, equipment, and work areas to identify and to correct unsafe conditions and work practices.
8. Maintain records of training, periodic inspections, corrective actions, and accident investigations.

_________________________________  ______________________  ____________________
President/Owner  (Date Prepared)

_________________________________  ______________________  ____________________
<Safety Officer>  Date
SAFETY RESPONSIBILITY

1. Management will:
   a. Provide means to implement the Safety Program through motivation, training, counseling and enforcement.
   b. Be responsible for initiating compliance for all safety program elements applicable to his/her area.
   c. Be responsible for training subordinates in accident prevention and safe work habits.
   d. Comply with all safety laws and ordinances, federal, state and local.
   e. Identify hazards through safety inspections and develop timely countermeasures.
   f. Ensure that the safety of employees, the public and its operation are paramount.
   g. Require that safety will take precedence over expedience or shortcuts.
   h. Make every attempt to reduce the possibility of accident occurrence.
   i. Enforce the company Safety Program and discharge any employee willfully disregarding it.
   j. Be responsible that all powered equipment complies with all appropriate safety regulations and lockout/tagout procedure is in place.

2. Department Managers will:
   a. Advise appropriate personnel and initiate investigation of any and all accidents in the department manager’s department and file reports on each.
   b. Evaluate injuries and develop a course of action.
   c. Provide safety training for personnel.
   d. Be responsible for safety in their department.
   e. Make available all necessary personal protective equipment, job safety material and first aid equipment.
   f. Be familiar with the pertinent requirements of OSHA and state regulations as they pertain to health and safety on the job in their department.
   g. Make supervision aware that it is their responsibility to enforce safe practices in addition to specific safety functions that are made part of their responsibility.

3. Supervisors will:
   a. Enforce Safety Policy at work level.
   c. Assist in incident investigation, report generation and corrective action development and implementation.
   d. Realize that they are fully accountable for the safety and performance of all employees working under their supervision.
   e. Acquire and maintain safety related qualification for work performed in their area. This includes awareness of the safety related rules for work done in their area. First aid training is encouraged/required for supervisors in all areas.
   f. See that all injuries are taken care of properly and reported promptly.
   g. Make sure necessary personal protective equipment is on hand and used.
   h. Confirm all employees have received employee initiation training and appropriate task-specific safety instructions prior to assignments of duties and instructions as to job hazards.
i. Perform or confirm equipment is safety inspected, in adequate working order or is segregated from use and reported for maintenance. File reports on equipment inspections.

4. Employees will:
   a. Be familiar with company Safety Policy and Safety Rules as a condition of employment. All employees shall be responsible to learn and comply with all safety and health rules and regulations applicable to their work. It is their further responsibility to support the company in providing a safe place to work, and to protect themselves and co-workers against injuries or illnesses.
   b. Refrain from any unsafe act that might endanger him or fellow workers or damage equipment.
   c. Employees shall utilize all personal protective equipment as directed by the company.
   d. Employees shall practice sanitary health habits.
   e. Employees shall report all safety and health hazards to supervisors and shall take all necessary actions to establish an immediate temporary control of the hazard until permanent control can be established.
   f. Employees shall immediately report all accidents or incidents occurring on the job to their supervisor, including industrial injury accidents no matter how slight.
   g. Employees shall cooperate and assist in the investigation of all accidents or incidents.
   h. Assume responsibility for deliberate acts that cause injury.
   i. Comply with safety practices as a condition of continued employment.

5. The <Safety Officer> will:
   a. Be responsible for having access to a current copy of all applicable federal, state and local safety and health regulations.
   b. Develop rules of safe practices for each function of company operations.
   c. Be responsible for implementation and monitoring safety training.
   d. Chair the Safety Committee.
   e. Recommend safety training programs.
   f. Review and recommend changes in the safety program as the need is identified.
   g. Be responsible for all required non-confidential records.
   h. Conduct annual safety review.
   i. Be responsible for maintaining a system to provide first aid supplies and secure prompt medical attention for injured employees.
   j. Be responsible for assuring proper notification, internal and external, in the event of an accident, incident or fatality.
   k. Develop or adopt safe procedures for the operation of equipment consistent with the manufacturer's operating instructions and applicable regulatory (standards) agencies, e.g., OSHA, ANSI.
   l. Develop a system to encourage employees to report unsafe conditions.
   m. Conduct a thorough investigation of each accident or incident, whether or not it results in an injury, to determine why it occurred and how to prevent reoccurrence.
   n. Instruct supervisors in their safety responsibilities.
   o. Develop a program of employee education about company policies and work practices.
   p. Conduct scheduled periodic inspections of facilities, equipment, and work areas to identify and to correct unsafe conditions and work practices.
q. Maintain records of training, periodic inspections, corrective actions, and accident investigations.

6. The Safety Committee will:
   a. Meet on a regular schedule.
   b. Review all accident reports and determine preventability.
   c. Conduct safety inspections.
   d. Review employee safety suggestions.
   e. Recommend and assist in establishing additional general safety rules as the need is identified.
   f. Develop and monitor a safety improvement plan with respect to company activities.
   g. Prepare a written Safety Committee Report of the topics discussed, agreements made, accidents reviewed, self-inspection results, and anticipated future committee activities.
Chapter Two

RECORDS, REPORTING AND DOCUMENTATION

PURPOSE

The purpose of this chapter is to define and assign the company practices with regard to OSHA-required records, reports and documentation and company documentation.

If the <Safety Officer> is not on the premises when a recordable event occurs, all reasonable means shall be taken to contact him/her. If the <Safety Officer> is not reachable, the immediate duties shall be the responsibility of the <General Manager> and if he or she is not available, the <Plant Manager>.

RECORDING INJURIES AND ILLNESSES

Injuries and illnesses shall be recorded by the <Safety Officer> on OSHA 301 as soon as practicable after becoming aware of the injury but never later than 7 days after the injury and in accordance with current OSHA requirements. The injury/illness will be logged on OSHA 300.

The <Safety Officer> will assist in completing insurance advisory, claim forms and workers compensation forms as appropriate and as requested by the company insurance liaison.

Injuries and illnesses that must be recorded on OSHA forms are explained in detail in 29CFR1904. OSHA’s online tool OSHA Recordkeeping Advisor located at http://webapps.dol.gov/elaws/OSHARecordkeeping.htm will help to determine if an injury is a recordable injury.

An injury or illness is considered to meet the general recording criteria, and therefore to be recordable, if it results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness.

If an employee is away from work for diagnostics, test or first aid only on the day of the incident, the event will not be recordable.

First aid is defined as:

- Using a non-prescription medication at non-prescription strength;
- Administering tetanus immunizations;
- Cleaning, flushing or soaking wounds on the surface of the skin;
- Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™;
- Using hot or cold therapy;
- Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc.;
- Using temporary immobilization devices while transporting an accident victim;
- Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;
- Using eye patches;
- Removing foreign objects from the eye using only irrigation or a cotton swab;
- Removing splinters or foreign objects from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means;
- Using finger guards;
• Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes); or
• Drinking fluids for relief of heat stress.

OSHA records shall be retained for five years from the end of the year to which they refer. Company required records shall also be maintained for a minimum of five years. All records shall be legible and written in an understandable fashion.

REPORTING

• All injuries or illnesses shall be reported to the Department Manager
• Injuries or illnesses resulting in loss of work shall be reported to the Shop manager.
• Injuries or illnesses resulting in loss of more than one day shall be reported to the General Manager.
• Injuries that will result in a change in payroll, a medical expense or an insurance claim will be reported to the insurance liaison immediately.

The <Safety Officer> shall orally report all work-related inpatient hospitalizations, all amputations and all losses of an eye within 24 hours to the nearest OSHA office, the OSHA Hotline at 1-800-321-OSHA (6742) or online at https://www.osha.gov/pls/ser/serform.html. A voice message on the local office answering machine is not considered acceptable. If the local office does not answer, call the hotline or use the online form.

The <Safety Officer> shall orally report within 8 hours work-related fatalities to the nearest OSHA office, the OSHA Hotline at 1-800-321-OSHA (6742) or online at https://www.osha.gov/pls/ser/serform.html. A voice message on the local office answering machine is not considered acceptable. If the local office does not answer, call the hotline or use the online form.

When reporting a fatality, inpatient hospitalization, amputation or loss of an eye to OSHA the following is required to be reported:

• Establishment name
• Location of the work-related incident
• Time of the work-related incident
• Type of reportable event (i.e. fatality, inpatient hospitalization, amputation or loss of eye)
• Number of employees who suffered the event
• Contact person an his or her phone number
• Brief description of the work-related incident

It is not necessary to report the following incidents to OSHA:

• If it resulted from a motor vehicle accident on a public street or highway. Employers must report the event if it happened in a construction work zone.
• If it occurred on a commercial or public transportation system (airplane, subway, bus, ferry, streetcar, light rail, train).
• If it occurred more than 30 days after the work-related incident in the case of a fatality or more than 24 hours after the work-related incident in the case of an inpatient hospitalization, amputation, or loss of an eye.
• An inpatient hospitalization if it was for diagnostic testing or observation only. An inpatient hospitalization is defined as a formal admission to the inpatient service of a hospital or clinic for care or treatment.
• An inpatient hospitalization due to a heart attack, if the heart attack did not resulted from a work-related incident.
RECORD KEEPING POSTINGS

The OSHA 300A Log for the previous year must be posted in a location accessible by all employees no later than February 1st and shall remain posted until April 30th. Employers with 20 to 249 employees will be required to submit their 2016 and 2017 300A forms electronically to OSHA by July 1st of the following year and by March 2nd every following year.

OTHER DOCUMENTATION

Various OSHA and company requirements for written programs, inspections and training demand documentation. These requirements are defined in the appropriate place in this Manual. Examples of such documentation are:

- Employee initiation training
- Employee recurrent training (toolbox talks and periodic training)
- Task-specific safety training
- Employee pre-employment health screening
- Periodic employee health screens
- Crane inspections
- Electrical conductor inspections (including welding leads)
- Periodic facility inspection
How to Fill Out the Log

The Log of Work-Related Injuries and Illnesses is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the Log to record specific details about what happened and how it happened.

If your company has more than one establishment or site, you must keep separate records for each physical location that is expected to remain in operation for one year or longer.

We have given you several copies of the Log in this package. If you need more than we provided, you may photocopy and use as many as you need.

The Summary — a separate form — shows the work-related injury and illness totals for the year in each category. At the end of the year, count the number of incidents in each category and transfer the totals from the Log to the Summary. Then post the Summary in a visible location so that your employees are aware of injuries and illnesses occurring in their workplace.

You don't post the Log. You post only the Summary at the end of the year.

OSHA’s Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

You must record information about every work-related case and about every work-related injury or illness that involves loss of consciousness, restricted work activity, or job restriction. Make sure your records are complete, correct, and legible. Your records must be kept for at least 5 years. Your records are required to keep for at least 5 years after the date a record is entered on the Log.

OSHA requires Form 300 to be completed by employers. Employers must submit Forms 300A, 301, and 200 to the appropriate OSHA regional office.

Be as specific as possible. You can use two lines if you need more room.

Revision: If the injury or illness progresses and the outcome is more serious than you originally recorded for the case, cross out, erase, or white-out the original entry.

Choose only ONE of these categories. Classify the case by recording the most serious outcome of the case, with column G (Death) being the most serious and column J (Other recordable cases) being the least serious.
**OSHA's Form 300 (Rev. 01.2004)
Log of Work-Related Injuries and Illnesses**

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity, or job transfer; days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.13 through 1904.15. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

### Identify the person

<table>
<thead>
<tr>
<th>Case no.</th>
<th>Employee's name</th>
<th>Job title (e.g., Welder)</th>
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### Describe the case

<table>
<thead>
<tr>
<th>Date of injury or onset of illness</th>
<th>Where the event occurred (e.g., Cutting hook with end)</th>
<th>Injuy or illness, parts of body affected, and object/agent that directly injured or made person ill (e.g., Second degree burn on right forearm from everyday work)</th>
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### Classify the case

**CHECK ONLY ONE box for each case based on the most serious outcome for that case.**

<table>
<thead>
<tr>
<th>Death</th>
<th>Days away from work</th>
<th>Job transfer or restriction</th>
<th>Other recordable cases</th>
<th>Away from work</th>
<th>On job transfer or restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(2)</td>
<td>(4)</td>
<td>(9)</td>
<td>(K)</td>
<td>(L)</td>
</tr>
</tbody>
</table>

Enter the number of days the injured or ill worker was:

<table>
<thead>
<tr>
<th>Injury</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
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</table>

Check the "injury" column or choose one type of illness:

### Page totals

Be sure to transfer these totals to the Summary page (Form 300) before you file it.

<table>
<thead>
<tr>
<th>Page of</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
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<tr>
<td>Number of Cases</td>
<td>Number of Days</td>
<td>Injury and Illness Types</td>
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</tbody>
</table>

**Sample Safety Program Elements for Structural Steel Fabrications**
PURPOSE

The purpose of this chapter is to define and assign company practices with regard to mandatory safety training.

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthful workplace. OSHA requires that training be performed in accordance with the following Subparts of 1910:

- Subpart E – Exit Routes and Emergency Planning
- Subpart F – Powered Platforms, Manlifts and Vehicle-Mounted Work Platforms
- Subpart G – Occupational Health and Environmental Control
- Subpart H – Hazardous Materials
- Subpart I – Personal Protective Equipment
- Subpart J – General Environmental Controls
- Subpart K – Medical Services and First Aid
- Subpart L – Fire Protection
- Subpart N – Material Handling and Storage
- Subpart O – Machinery and Machine Guarding
- Subpart Q – Welding Cutting and Brazing
- Subpart S – Electrical Safety-Related Work Practices
- Subpart Z – Toxic and Hazardous Substances

OSHA has published “Training Requirements in OSHA Standards” and is available at https://www.osha.gov/Publications/osha2254.pdf.

Training is an essential element of the company safety program. Many tasks require some form of training and every employee must receive training on safety topics relevant to the general operation of a place of business.

The company <Safety Officer> shall have overall responsibility for the development and implementation of the safety training program.

COMPONENTS OF TRAINING

1. Training shall be conducted by a person designated by the <Safety Officer> as competent.
2. Training shall be planned to meet specific training goals.
3. Specific training objectives (concepts to be communicated) shall be developed.
4. Training content will be developed or acquired. Content will include examples, handouts or graphic enhancements, where practical, to improve understanding and retention of the training objectives.
5. Training will be evaluated and revised as necessary to optimize its effectiveness. Employees may be tested, orally quizzed, observed subsequent to training or interviewed as methods to evaluate the success of the training.
BASIC TRAINING PROGRAMS

Employee Orientation

Prior to being permitted to work, new employees shall receive New Employee Orientation.

Goals of the New Employee Orientation:
- To introduce the new employee to the company safety culture
- To familiarize the new employee with general safety rules
- To familiarize the new employee with rules pertinent to tasks commonly performed by new employees or that do not require special qualification
- To inform the employee of their rights and responsibilities under the safety program
- To inform the employee who to go to for answers to future questions
- To inform the employee of the existence of written Safety Program elements

Employee Orientation Objectives:
- The existence of and main concepts in the written Safety Program elements
- General Safety Rules (See General Safety Rules at the end of the section)
- Rules for tasks commonly performed by new employees (See Common Tasks at end of the section)

Orientation Content:
The content of the new employee orientation is to include:
- An overview of the Safety Manual (Written Safety Program Elements)

Supervisor Training

A good source for training of supervisors and employees is Susan B. Harwood Training program titled “Safety in Structural Steel Fabricator and Supply Company Warehousing Activities Training Program” located at http://www.spdc.msu.edu/training_workshops/safety_in_structural_steel_fabricator_and_supply_company_warehousing_activi/training_presentations

Goal:
- To inform supervisors of their responsibilities under this safety program.

Training Objectives:
- Emergency Action Plan responsibilities
- Occupational Injury Management Responsibilities
- Review safety rules for tasks performed in their area

Content:
The content of supervisor safety training shall consist of the written Emergency Action Plan, Occupational Injury Management procedure and the safety rules for tasks and equipment operated in their areas.
## Training Program Requirements

<table>
<thead>
<tr>
<th>Visitor Rules</th>
<th>Affected People</th>
<th>Visitors, office employees who visit the shop on occasion, contractors working in the shop.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>When/Delivery Method</td>
<td>Prior to first visit/one-on-one and written material distribution.</td>
</tr>
<tr>
<td></td>
<td>Possible Training Materials</td>
<td>Placards at shop entrances and visitor handout.</td>
</tr>
<tr>
<td></td>
<td>Comments</td>
<td>PPE requirements, no smoking in the paint bay, stay in marked walks, keep clear of suspended and moving loads, avoid sparks and watching weld arcs.</td>
</tr>
</tbody>
</table>

### General Safety Rules

<table>
<thead>
<tr>
<th>General Safety Rules</th>
<th>Affected People</th>
<th>All Shop Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>When/Delivery Method</td>
<td>Prior to first day of work with periodic reminders/small group initiation and toolbox talks.</td>
</tr>
<tr>
<td></td>
<td>Possible Training Materials</td>
<td>General Safety Rules for Fabricators Chapter 4 of this publication</td>
</tr>
<tr>
<td></td>
<td>Comments</td>
<td>Distribute this publication, advise that the employee is responsible for knowing and following Chapter 4 General Safety Rules. After at least one night with them in his possession obtain a signature that he has read then and understands them.</td>
</tr>
</tbody>
</table>

### Available Safety Programs

<table>
<thead>
<tr>
<th>Available Safety Programs</th>
<th>Affected People</th>
<th>All Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>When/Delivery Method</td>
<td>Prior to first assignment.</td>
</tr>
<tr>
<td></td>
<td>Possible Training Materials</td>
<td>This is a list of all of the training available so an employee knows what is available and what tasks require safety training.</td>
</tr>
<tr>
<td></td>
<td>Comments</td>
<td>Make employees aware of other safety training available and ask them to help by telling you if they are assigned tasks that require such training before they have had it.</td>
</tr>
</tbody>
</table>

### PPE General

<table>
<thead>
<tr>
<th>PPE General</th>
<th>Affected People</th>
<th>All Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>When/Delivery Method</td>
<td>Prior to first assignment.</td>
</tr>
<tr>
<td></td>
<td>Possible Training Materials</td>
<td>Company PPE requirements. Display damaged PPE.</td>
</tr>
<tr>
<td></td>
<td>Comments</td>
<td></td>
</tr>
</tbody>
</table>

### First Aid & CPR

<table>
<thead>
<tr>
<th>First Aid &amp; CPR</th>
<th>Affected People</th>
<th>Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>When/Delivery Method</td>
<td>Prior to taking position.</td>
</tr>
<tr>
<td></td>
<td>Possible Training Materials</td>
<td>Red Cross and others.</td>
</tr>
<tr>
<td></td>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affected People</td>
<td>Supervisors</td>
</tr>
</tbody>
</table>
### TRAINING PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th>Activity</th>
<th>Affected People</th>
<th>When/Delivery Method</th>
<th>Possible Training Materials</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic External Defibrillator (AED)</td>
<td></td>
<td></td>
<td>Prior to taking position.</td>
<td>Physician’s prescription required to obtain AED</td>
</tr>
<tr>
<td>Fire Safety</td>
<td>All Employees</td>
<td>Prior to first day of work.</td>
<td>Hands-on or video-based fire extinguisher training. Tour of facilities for exit and fire fighting equipment.</td>
<td>Exit and extinguisher/hose locations, keep aisles clear and exits clear and operable, where to congregate, clearance between combustibles and hot work and fire watch requirements.</td>
</tr>
<tr>
<td>Crane Safety &amp; Rigging</td>
<td>All Employees</td>
<td>Prior to operating cranes or working with suspended loads.</td>
<td>Written material on how to calculate loads, hands-on training for safe practices.</td>
<td></td>
</tr>
<tr>
<td>Welding</td>
<td>Welders/Fitters</td>
<td>Prior to welding.</td>
<td>ANSI Z49.1</td>
<td></td>
</tr>
<tr>
<td>Thermal Cutting</td>
<td>Burners, burning machine operators, fitter/welders, maintenance workers.</td>
<td>Prior to thermal cutting.</td>
<td>Demonstration</td>
<td>Include gas handling, handling hot materials, sparks, use and benefit of flashback arrestors.</td>
</tr>
<tr>
<td>Painting</td>
<td>Painters</td>
<td>Prior to painting.</td>
<td>Demonstration</td>
<td>PPE, flammables, spill containment and HAZMAT. Respirator fit test SDS review. Spray equipment safe practices.</td>
</tr>
<tr>
<td>Respirator Training</td>
<td>Painters and others, as required by PPE audit.</td>
<td>Prior to use and after pre-task health monitoring.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TRAINING PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th><strong>Equipment Operation</strong></th>
<th><strong>Possible Training Materials</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affected People</strong></td>
<td><strong>Demonstration</strong></td>
<td></td>
</tr>
<tr>
<td><strong>When/Delivery Method</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Possible Training Materials</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hazard Communication</strong></th>
<th><strong>Affected People</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When/Delivery Method</strong></td>
<td>Prior to first day of work.</td>
<td></td>
</tr>
<tr>
<td><strong>Possible Training Materials</strong></td>
<td>Video or one-on-one training.</td>
<td>SDS book or database location</td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>Where SDSs are kept, how to read them, the meaning of terms commonly used in SDSs, HazMat cleanup. Pictogram training</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Blood-borne Pathogens</strong></th>
<th><strong>Affected People</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When/Delivery Method</strong></td>
<td>Prior to first day of work.</td>
<td></td>
</tr>
<tr>
<td><strong>Possible Training Materials</strong></td>
<td>Video</td>
<td></td>
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<tr>
<td><strong>Comments</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Confined Spaces</strong></th>
<th><strong>Affected People</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When/Delivery Method</strong></td>
<td>Prior to first operation in a confined space; review prior to working in a confined space after some period outside a confined space.</td>
<td></td>
</tr>
<tr>
<td><strong>Possible Training Materials</strong></td>
<td>Video and space specific hazards and trainings must be done each time</td>
<td></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>Review of the confined space requirements are required for work in a permitted confined space. Train in use of air monitoring devices. Post permit confined spaces</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Lockout/Tagout Rules for Affected Personnel</strong></th>
<th><strong>Affected People</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When/Delivery Method</strong></td>
<td>Prior to first day of work.</td>
<td></td>
</tr>
<tr>
<td><strong>Possible Training Materials</strong></td>
<td>Demonstration</td>
<td></td>
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<tr>
<td><strong>Comments</strong></td>
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</table>

<table>
<thead>
<tr>
<th><strong>Lockout/Tagout—Authorized Personnel Rules</strong></th>
<th><strong>Affected People</strong></th>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When/Delivery Method</strong></td>
<td>Prior to operating equipment or performing maintenance operations, for other employees in the first year of employment.</td>
<td></td>
</tr>
</tbody>
</table>

*Sample Safety Program Elements for Structural Steel Fabrications*
### TRAINING PROGRAM REQUIREMENTS

<table>
<thead>
<tr>
<th></th>
<th>Possible Training Materials</th>
<th>Comments</th>
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<tbody>
<tr>
<td><strong>Forklift</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affected People</td>
<td>Authorized for Lift Operators</td>
<td></td>
</tr>
<tr>
<td>When/Delivery Method</td>
<td>Prior to first use of the equipment.</td>
<td></td>
</tr>
<tr>
<td>Possible Training Materials</td>
<td>Demonstration, video, operator’s manual, hands-on.</td>
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<tr>
<td><strong>Personnel Lifts</strong></td>
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</tr>
<tr>
<td>Affected People</td>
<td>All Employees who use the equipment.</td>
<td></td>
</tr>
<tr>
<td>When/Delivery Method</td>
<td>Prior to first use of the equipment.</td>
<td></td>
</tr>
<tr>
<td>Possible Training Materials</td>
<td>Demonstration, video, operator’s manual, hands-on.</td>
<td></td>
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<tr>
<td><strong>Ladders</strong></td>
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<tr>
<td>Affected People</td>
<td>All Employees</td>
<td></td>
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<tr>
<td>When/Delivery Method</td>
<td>Prior to first day of work.</td>
<td></td>
</tr>
<tr>
<td>Possible Training Materials</td>
<td>Presentation, video.</td>
<td></td>
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<tr>
<td><strong>Scaffolds</strong></td>
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<tr>
<td>Affected People</td>
<td>All employees who use the equipment.</td>
<td></td>
</tr>
<tr>
<td>When/Delivery Method</td>
<td>Prior to first use of the equipment.</td>
<td></td>
</tr>
<tr>
<td>Possible Training Materials</td>
<td>Presentation, video.</td>
<td></td>
</tr>
<tr>
<td><strong>Fall Protection</strong></td>
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<tr>
<td>Affected People</td>
<td>All Employees</td>
<td></td>
</tr>
<tr>
<td>When/Delivery Method</td>
<td>Prior to first day of work.</td>
<td></td>
</tr>
<tr>
<td>Possible Training Materials</td>
<td>Presentation, demonstration, video.</td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td>Conditions requiring fall protection; Fall Protection types (positioning, guard rails, personal fall protection, anchor points)</td>
<td></td>
</tr>
<tr>
<td><strong>Material Handling</strong></td>
<td></td>
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<tr>
<td>Affected People</td>
<td>All Employees</td>
<td></td>
</tr>
<tr>
<td>When/Delivery Method</td>
<td>Prior to first day of work.</td>
<td></td>
</tr>
<tr>
<td>Possible Training Materials</td>
<td>Presentation, demonstration, video.</td>
<td></td>
</tr>
<tr>
<td><strong>Bench Grinding</strong></td>
<td></td>
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<tr>
<td>Affected People</td>
<td>All employees who use the equipment.</td>
<td></td>
</tr>
<tr>
<td>TRAINING PROGRAM REQUIREMENTS</td>
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<td>--------------------------------</td>
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<tr>
<td><strong>Power Tool Use</strong></td>
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<tr>
<td><strong>When/Delivery Method</strong></td>
<td>Prior to first use of the equipment.</td>
<td></td>
</tr>
<tr>
<td><strong>Possible Training Materials</strong></td>
<td>Demonstration</td>
<td></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Affected People</strong></td>
<td>All Employees</td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Action Plan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>When/Delivery Method</strong></td>
<td>Prior to first day of work.</td>
<td></td>
</tr>
<tr>
<td><strong>Possible Training Materials</strong></td>
<td>Demonstration</td>
<td></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>Operation, Set up (tool and bit changes), storage</td>
<td></td>
</tr>
<tr>
<td><strong>Affected People</strong></td>
<td>All Employees</td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Action Plan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>When/Delivery Method</strong></td>
<td>Prior to first day of work.</td>
<td></td>
</tr>
<tr>
<td><strong>Possible Training Materials</strong></td>
<td>Presentation</td>
<td></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>Posting of Emergency Action Plan is required</td>
<td></td>
</tr>
<tr>
<td><strong>Affected People</strong></td>
<td>Supervisors</td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Action Plan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>When/Delivery Method</strong></td>
<td>Prior to supervising.</td>
<td></td>
</tr>
<tr>
<td><strong>Possible Training Materials</strong></td>
<td>Presentation</td>
<td></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>Communicate Emergency Type</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clear Area</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Account for employees</td>
<td></td>
</tr>
</tbody>
</table>
Subject: General Safety Rules

Event Development and Content:

Learning Objectives: Introduction to the general safety rules. Awareness of the company policy on safe practices. Incentive discipline program on safety. Expectation of safe behavior in the shop. Awareness that the company is very serious about the use of safe practices.

Participant Characteristics: New employees frequently using Spanish as a first language.

Resources Required:

Trainer Qualifications: English/Spanish speaking supervisor with knowledge of shop practices and demonstrated skill presenting the material.

Space: Lunchroom when not in use, office or conference room.

Presentation Equipment and Samples: Video Presentation titled: __________________________
Projector and screen or monitor
Safety Manual for distribution.

Time Required: 90 minutes

Content Description: Video presentation titled: __________________________
Distribution of General Safety Rules with advice that the employee will be expected to be aware of the rules. Verbal emphasis of selected rules, e.g. stay out from under loads, no horseplay, if in doubt ask, keep aisles and exits clear, do not smoke in the paint bay or around solvents, fire and safety equipment locations, avoid looking at welding arcs, avoid pinch points, what the employee is not qualified to do until the employee has been trained: e.g. weld, run heavy equipment without training, handle hazardous material, repair equipment, use cranes or rig loads.

Event Conduct:

Training Provider: Ed Teach


Date: 10/5/16

Participants: See sign-in sheet attached.

Event Evaluation:

Evaluator: Ed Teach

Evaluation method:

- ☑️ Test
- ○ Skill observation during the event
- ○ Task observation after the event
- ○ Participant feedback

Results of the evaluation: All passed. I informed all participants of the correct answers to any questions they missed.

Areas for future improvement:
Subject: Punch Operation

Event Development and Content:

Learning Objectives:
- Daily pre-operation inspection, set up, power up.
- Inbound and outbound material handling.
- Punch controls particularly the operation of the panic stop function.
- Changing the punch and die
- Paperwork: How to determine raw material to use, hole dimensions, note the work is done.
- Punching procedure (including use of guards).
- Material handling to avoid pinch points
- Operating limits: Limits of in and out material handling as well as punch limits, tips to recognize piece weights.
- Potential operating hazards and safety rules.

Participant characteristics: Reasonably new employee, has general safety rules and PPE, working around cranes. May have Spanish or another language as a first language.

Resources Required:

Trainer Qualifications: Trained or experienced punch operator who has demonstrated the ability to safely run the punch. May have to speak Spanish.

Space: Time with the punch.

Presentation Equipment and Samples: Material in process or scrap for demonstration.

Time Required: 45 minutes of one-on-one demonstration and task observation, followed by periodic observation and part inspection.

Content Description: See Punch Safety Orientation Instructions.

Event Conduct:

Training Provider:
Learning Objectives:
Date:
Participants:

Event Evaluation:

Evaluator:
Evaluation method: ○ Test
☑ Skill observation during the event
○ Task observation after the event
○ Participant feedback

Results of the evaluation:

Areas for future improvement:
PUNCH SAFETY ORIENTATION INSTRUCTIONS

Pre-Operation Inspection
1. At the start of each shift, verify the operation of the anti-repeat buttons and note any item in need of repair and log your verification on the daily inspection sheet.
2. Every six months the Punch shall be inspected for the items listed on the “Biannual Punch Inspection” sheet which follows.
3. Inspect punch and die before installing. Do not use damaged punches and/or dies.
4. When moving material into or out of the Punch, the walkways must be clear and unoccupied.

Set up/Power up
1. Follow lockout procedures when applicable.
2. Choose the proper size die to match the punch. DO NOT use mismatched sets.
3. For slotted punches the punch must have a keyway machined at the stem end corresponding to the key and keyway on the stem of the machine. The punch must be installed with the keyways matched and a key fully engaged.
4. Set up Punch by installing and aligning lower die blocks and upper punches.

In and out Material handling
Material handling for the Punch consists of a 5-ton, pendant-operated jib crane and roller supports designed to support a 5-ton piece if the weight is reasonably evenly distributed.

Controls
The equipment has the following controls and functions:

Punch: Cycles the punch
Panic stop: Immediate stop of all functions

Information systems

Punch procedure

Operating limits
The Punch is a 65 ton punch. It can punch:
- 1 1/16 in. hole in 1/2 in., 36 ksi material
- 15/16 in. hole in 1/2 in., 50 ksi material
- 13/16 in. hole in 5/8 in., 36 ksi material
- 1 1/16 x 1 5/16 slot in 5/8 in., 50 ksi material
- 15/16 x 1 1/8 slot in 3/4 in., 50 ksi material
- 13/16 x 1 slot in 1 in., 36 ksi material

Potential Hazards and Safety Rules
1. See rules for machinery operation.
2. Keep hands on top of material as it is rolled into and out of the Punch. Do not place your hands where they can become trapped between the material and the rolls.
3. Keep hands from between the stripper and the material to be punched.
## New Employee Checklist

Check off each item as you discuss it with the new employee.

(This is a partial checklist that could be used as part of your new employee training. By adding your specific rules and personal protective equipment to the list, you can make it complete).

<table>
<thead>
<tr>
<th>Item</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tour of the Department and Facilities (Discuss Hazards)</strong></td>
<td>☐</td>
</tr>
<tr>
<td>Proper Lifting Procedures</td>
<td>☐</td>
</tr>
<tr>
<td>Personal Protective Equipment Issued and its Use and Inspection</td>
<td>☐</td>
</tr>
<tr>
<td>Procedure for Obtaining, Cleaning, Repairing, and Replacing Personal Protective Equipment</td>
<td>☐</td>
</tr>
<tr>
<td>Specific Safety Rules Applicable in our Department (Including the Reasons for the Rules)</td>
<td>☐</td>
</tr>
<tr>
<td>A.</td>
<td></td>
</tr>
<tr>
<td>B.</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td></td>
</tr>
<tr>
<td>Where to Keep Personal Belongings (Clothing, Personal Tools, Lunch, Etc.)</td>
<td>☐</td>
</tr>
<tr>
<td>What to do in the Event of an Injury</td>
<td>☐</td>
</tr>
<tr>
<td>What to do in the Event of a Non-Injury Accident</td>
<td>☐</td>
</tr>
<tr>
<td>Fire Safety / Emergency Planning Rules</td>
<td>☐</td>
</tr>
<tr>
<td>Special Clean-Up Rules</td>
<td>☐</td>
</tr>
<tr>
<td>Clean-Up Rules – Housekeeping</td>
<td>☐</td>
</tr>
<tr>
<td>What to do in the Event of Near-Misses</td>
<td>☐</td>
</tr>
<tr>
<td>How to Report Unsafe Conditions</td>
<td>☐</td>
</tr>
<tr>
<td>Lockout Training</td>
<td>☐</td>
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<tr>
<td>Hazard Communications Training</td>
<td>☐</td>
</tr>
<tr>
<td>Fall Protection Training</td>
<td>☐</td>
</tr>
</tbody>
</table>
One of the best times to promote on-the-job safety is BEFORE new employees begin to work.

- **INTRODUCTION**  Take a new employee on a tour of the company’s work areas. Familiarize them with the company’s various departments and facilities.

- **EXPLAIN**  Go through details on safety requirements.

- **DEMONSTRATE**  Explain the job to the new employee and include detailed demonstrations that specify important safety practices.

- **TEST**  When the employee understands the procedure, have them do the job while you watch. Correct any improper or unsafe acts and explain why.

- **DOUBLE-CHECK**  Test the progress of the new employee several times during their first few weeks of employment. Observe and evaluate the employees’ work methods. Correct any deviation from the safe work procedures described during the earlier job demonstration procedure.
## TRAINING EVENT DOCUMENTATION

<table>
<thead>
<tr>
<th>Subject:</th>
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</thead>
<tbody>
<tr>
<td>Event Development and Content:</td>
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</tr>
<tr>
<td>Learning Objectives:</td>
<td></td>
</tr>
<tr>
<td>Participant Characteristics:</td>
<td></td>
</tr>
<tr>
<td>Resources Required:</td>
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</tr>
<tr>
<td>Trainer Qualifications:</td>
<td></td>
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<tr>
<td>Space:</td>
<td></td>
</tr>
<tr>
<td>Presentation Equipment and Samples:</td>
<td></td>
</tr>
<tr>
<td>Time Required:</td>
<td></td>
</tr>
<tr>
<td>Content description:</td>
<td></td>
</tr>
</tbody>
</table>

### Event Conduct:
- Training Provider:  
- Learning Objectives:  
- Date:  
- Participants:  

### Event Evaluation:
- Evaluator:  
- Evaluation Method:  
  - Test  
  - Skill observation during the event  
  - Task observation after the event  
  - Participant feedback  
- Results of the evaluation:  
- Areas for future improvement:  

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Sample Safety Program Elements for Structural Steel Fabrications
Chapter Four

GENERAL SAFETY RULES

CODE OF SAFE PRACTICES

RULES RELATED TO ALL PERSONNEL IN THE SHOP

1. All company safety policies and procedures must be followed.
2. Employees are responsible to obey the safety rules and instructions of their supervisor.
3. Anyone known to be under the influence of alcohol and/or drugs shall not be allowed on the job.
4. No one shall knowingly be permitted or required to work while his or her ability or alertness is impaired by fatigue, illness, or other causes that might expose the individual or others to injury.
5. Horseplay and other acts that tend to endanger the safety or well-being of employees are prohibited. Fighting or instigating fights will not be tolerated.
6. Report all injuries to your immediate supervisor as soon as the injury occurs regardless of whether they are minor or serious so that arrangements can be made for medical and/or first aid treatment.

- First-aid materials are located in the hallway between the shop and office.
- In case of emergency dial 911 on an outside telephone line. Give the 911 responder the nature of the injury, the address and specific location in the facility.
- Fire extinguishers are located throughout the shop at the red-painted columns.
7. Work shall be well planned and supervised to prevent injuries when working with equipment and handling heavy materials. When lifting objects, employees should bend their knees and use the muscles of the legs instead of the smaller muscles of the back.
8. Employees should be alert to see that all guards and other protective devices are in place and properly adjusted, and shall report deficiencies to management. Approved personal protective equipment shall be worn in specified work areas.
9. Employees shall not handle or tamper with any electrical equipment, machinery, or air/water lines in a manner not within the scope of their duties unless they have received instructions and training from their supervisor/employer. Only trained and authorized employees shall operate machinery, equipment, tools, or company vehicles.
10. Observe all warning signs and tags.
11. Any damage to ladders, scaffolds or other supporting structures shall be reported immediately to the department supervisor or supervisor. Employees will not be expected to work with defective, damaged or unsafe tools or equipment. Work is to be arranged so that employees are able to face the ladder and use both hands while climbing.
12. All power tools and sources of ignition that may be present within 20 ft. horizontally or 10 ft. vertically shall be turned off or disconnected BEFORE working with liquid materials with a low flashpoint. (100 °F is commonly considered to be the limit of low flashpoint).
13. Do not throw materials, tools, or other objects from heights (whether structures or buildings) until proper precautions are taken to protect others from the hazard of the falling object.
14. Remove unsafe conditions. Keep good housekeeping in the work area. Housekeeping is the responsibility of each employee.
15. Employees shall thoroughly wash their hands and forearms after handling hazardous substances, and follow special handling instructions from authorized sources.
16. Gasoline and solvents shall not be used for personal cleaning purposes. Smoking is prohibited when working with any flammable substance.

17. Long-legged pants and shirts with sleeves must be worn in the plant. Tank tops and muscle shirts are not permitted to be worn. Also, safety-toed shoes and gloves must be worn by all personnel when necessary for the task. Remove gloves when working with rotating equipment. Safety glasses with side-shields must be worn at all times in the plant and in the yard when required by operation performed. Hearing protection is provided and may be used when desired but must be worn while working in an area where grinding and arc air gouging are being performed.

18. Protection gear must be worn at all times in accordance with job requirements or when requested by supervision.

19. A violation notice may be written by the Company immediately when an infraction of a rule has come to their attention; however, in an effort to be fair and just in any disciplinary action taken, the Company shall endeavor to thoroughly investigate all of the facts concerning the violation before selecting and implementing a disciplinary action.

**RULES RELATED TO USE OF TOOLS AND EQUIPMENT**

**General Use of Tools and Equipment**

1. All tools and equipment shall be maintained in good condition.
2. All tools and equipment must be inspected before and after each use. Never use damaged equipment. Report all defective equipment to your supervisor. Supervision shall evaluate whether to destroy or tag defective tools and equipment out of service.
3. Only appropriate tools shall be used for the job.
4. Wrenches shall not be altered by the addition of handle-extensions or “cheaters”.
5. Files shall be equipped with handles and not used to punch or pry.
6. A screwdriver shall not be used as a chisel.
7. Do not remove guards from portable grinding tools or break off ground leads on portable electric tool plugs.
8. Portable electric tools shall not be lifted or lowered by means of the power cord.
9. Electric cords shall not be exposed to damage from vehicle traffic.
10. In locations where the use of a portable power tool is difficult, the tool shall be supported by means of a rope or similar support of adequate strength.

**Machinery**

1. Only authorized persons shall operate machinery or equipment.
2. Loose or frayed clothing, long hair, dangling ties, etc., shall not be worn around moving machinery or other sources of entanglement.
3. Machinery shall not be serviced, repaired or adjusted while in operation, nor shall oiling of moving parts be attempted, except on equipment that is designed or fitted with safeguards to protect the person performing the work.
4. Appropriate, Lockout/Tagout procedures shall be used when working on machinery and equipment.
5. Employees shall not work under vehicles supported by jacks or chain hoists, without protective blocking that will prevent injury if jacks or hoists should fail.
6. Air hoses shall not be disconnected at compressors until air pressure has been bled off.

*Sample Safety Program Elements for Structural Steel Fabrications*
RULES RELATED TO SPECIFIC EQUIPMENT

Bench Grinding

1. Always wear long sleeves and use safety glasses and/or goggles and a face shield when grinding.
2. Do not stand in front of the wheel when first turning it on. Stand to the side.
3. The tool rest must always be set within 1/8 in. away from the wheel. The nose guard must be adjusted to within ¼ in. of the wheel—when in doubt, see the supervisor.
4. Wheels shall be kept “dressed”.
5. Sheet metal and other small pieces of work must never be ground on a bench grinder.
6. Grinding must never be done against the side of the wheel.
7. Bench grinding wheels must not be used if the pores are clogged. The wheels must also be free of large chips and grooves; have your supervisor show you how to dress the wheel.
8. Always wear hearing protection when grinding.
9. Metals other than steel should not be ground because of the danger of exploding grinding wheels, unless the grinding wheel is designed to grind these metals.
10. Follow Lockout/Tagout procedures when changing grinding wheels.
11. New grinding wheels must be given a “Ring” test before use. The following is the procedure for a “Ring” test:
   - Tap the wheel with a wooden mallet 45° each side of vertical. A clear metallic sound should be heard. If the sound is dead and does not “ring” clear, the wheel is cracked and must be discarded.
   - Rotate the wheel 45° and repeat.

Drill Press

1. Before changing drill bits, the drill press shall be powered off. Follow bit change procedure.
2. Small pieces of metal, when being drilled on a power machine, must not be held in the operator's hands.
3. Pieces of metal being drilled must be held tightly in a vise or clamp.
4. Before drilling, the employee must check the spindle speed and the set up. When in doubt, ask your supervisor.
5. Before drilling, always make sure the chuck key is removed. Never leave the chuck key in the chuck.
6. Use a pitchfork, rake, and shovel to dispose of drill shavings. Do not pick up drill shavings with your hands even if you are wearing gloves.

Punch Press

1. At the start of each shift, verify the operation of the anti-repeat buttons and note any item in need of repair and log your verification on the daily inspection sheet.
2. If any items on the punch are in need of repair, notify your department supervisor immediately.
3. Every six months the punch shall be inspected for the items listed on the “Biannual Punch Inspection” sheet.
4. Follow lockout procedures when applicable.
5. Before changing punches or dies, follow the punch/die change procedure.
6. Verify all guards are in place prior to operating the press.

7. Choose the proper size punch for the material thickness and the hole size in the appropriate template. Refer to punch capacity charts. Do not exceed the capacity of the machine.

8. Choose the proper size die to match the punch. Do not use mismatched sets.

9. Inspect punch and die before installing. Do not use damaged punches and/or dies.

10. For slotted punches the punch must have a keyway machined at the stem end corresponding to the key and keyway on the stem of the machine. The punch must be installed with the keyways matched and a key fully engaged.

11. After installing and tightening the punch and die, operate the punch manually without powering the machine to verify proper installation of punch.

12. After verifying proper installation, oil the punch.

13. Keep fingers 4 in. away from the punching area and away from in between the material to be punched and the punch block.

Ironworker

The Ironworker can perform three different operations; shearing, punching and bending.

Shearing

1. Verify all guards are in place.

2. Keep hands on top of material as it is rolled into and out of the Ironworker. Do not place your hands where they can become trapped between the material and the rolls.

3. Keep your hands clear of all shearing bars and/or hold-down devices.

4. Lower guard to within 3/8 in. of the surface when not in use.

Punching

1. Be sure pedal control door is closed before installing dies and punches. Follow Lockout/Tagout procedure for installing dies and punches.

2. Remove guard for installation of die block and punch.

3. Inspect punch and die before installing. Do not use damaged punches and/or dies.

4. Install the proper size die and die block for the material to be punched.

5. Choose the proper size punch for the material thickness and the hole size in the appropriate template.

6. For slotted punches the punch must have a keyway machined at the stem end corresponding to the key and keyway on the stem of the machine. The punch must be installed with the keyways matched and a key fully engaged.

7. Slowly lower punch until it is within 1/8 in. of die block.

8. Close the pedal control door on the Ironworker.

9. Align the die block with the punch and tighten into position.

10. Re-install guards.


12. Test operate the punching with no material installed.
13. Fingers shall be kept beyond 4 in. away from the punch. All small pieces must be held with a hand tool in order to accomplish this.

Bending

1. Be sure power switch is in the off position and the equipment is locked out, before installing bending blocks.
2. Remove guard for installation of bending blocks.
3. Position top bending block in place.
4. Lower ram to within 3/16 in. of top bending block.
5. Place top bending block in final position.
6. Lower ram into top bending block being careful to stop at the bottom.
7. Fasten top bending block to ram.
8. Place bottom bending block below top bending block.
10. Test operate with no material installed.

Saw

1. Keep walkways clear.
2. Keep hands away from material as it is rolled into and out of the saw. Do not place your hands where they can become trapped between the material and the rolls.
3. Keep fingers, hands, etc. away from the saw blade.
4. When using the saw vise do not place your hand or fingers between the vise and the material. This is a pinch point.
5. When moving material into or out of the saw, the walkways must be clear and unoccupied.
6. The saw must be powered off and blade doors opened, engaging the interlock, before changing the blades. Follow Lockout/Tagout procedure for changing blades.
7. Properly store saw blades.

Shear

1. Power off and lock out the shear.
2. Oil the shear before each use.
3. Verify all guards are in place.
4. When moving material into or out of the Shear the walkways must be clear and unoccupied.
5. Keep hands away from material as it is rolled into and out of the Shear. Do not place your hands where they can become trapped between the material and the rolls.
6. When using rolling forks, stand clear to one side to ensure that if the rolling fork slips it will not come in contact with your body.

Threading Machine

1. Install safety guard around threading machine area.
2. Set up threading machine for the proper size rods.
3. Test the threading machine with a test rod.
4. Oil the rod while threading.
5. Keep hands clear of the threading mechanism.

**Robot**

1. Never attempt to operate the robot until you have read and understand the operator manual and are familiar with all safety procedures.
2. Never enter the robot working area when the machine is under power.
3. Never leave the robot unattended while the machine is operating.
4. Do not perform maintenance on the robot without following all lock out / tag out procedures.
5. Stay clear of the robot while the yellow beacon on the arm of the robot is lit.
6. Keep all flammables away from the robot operating area as debris can be projected from the work area.
7. Be aware and cognizant of all pinch points in the robot area.
8. Robot must be equipped with an emergency stop button that is accessible by personnel outside the functioning area of the robot.
9. While in the “Teach” mode, the robot speed shall be limited to no more than 10 inches / second.

**VISITORS AND ON-SITE SUBCONTRACTORS**

Visitors and subcontractors are to obtain permission of the <Plant Manager> prior to entering the shop. Visitors will be accompanied by a company employee. Visitors will wear appropriate personal protective equipments (PPE) including shoes with closed toes and hard soles, safety glasses with eye shields, long pants and shirts with sleeves. Any PPE needed for specific tasks will be obtained and worn prior to conducting the task. Visitors will remain in those areas of the shop where they are permitted by their escort. Visitors will observe the general safety rules, in particular those on the handout for visitors.

Subcontractors will enter only those portions of the shop necessary to conduct the task they are hired to perform. Subcontractors will observe the shop general safety rules. The subcontractor is obligated to obtain a copy of those rules. Subcontractors shall provide protection for company employees exposed to hazards from work performed by the subcontractor. Subcontractors must provide their safety program on request. In the event of a conflict between subcontractor safety program and company program the provisions providing the most stringent safety for the task to be conducted shall be used. Subcontractor’s safety program shall include procedures for the tasks to be conducted while on the company premises. The subcontractor is responsible for providing for the safety and health of their employees.

**COMPANY HANDOUT FOR VISITORS**

This company places a high value on the safety and health of its workers and visitors. We further believe conscientious awareness and attention to safe practices lead to improved safety and health.

The employees in this facility have been trained in a wide range of safety practices. The rules here are an abbreviated set for the use of individuals who visit our shop on rare occasions, usually in the presence of a competent company representative. These abbreviated rules are intended to give you the information you need for short periods of general observation. The omission of any rule is not intended to relieve you of the responsibility of safe behavior.

In the interest of safety and health of you and our employees, please read and heed the following safety rules.
1. These rules are intended for short-term, general observers. If your visit to our facility places you in a position in which you feel unsafe or are unsure of the limits of safe conduct, ask your host, change your situation until you feel safe or leave.

2. Possession of weapons, alcohol or illegal drugs is not permitted on company property.

3. Personal Protective Equipment: Visitors in this facility are required to wear.
   - Hardhats
   - Shoes that cover the feet with substantial material (no open toes, no light canvas) and have essential flat (walking) soles of substantial material.
   - Safety glasses with side-shields
   - Hearing protection in high noise areas

4. Stay in marked paths.

5. Avoid looking at the arc from welding or gouging.

6. Avoid the path of sparks from grinding or thermal cutting.

7. Stay aware of, away from and out from under suspended or moving loads.

8. Do not smoke within 35 ft. of the Paint Bay.

9. Use personnel doors (not truck doors) to enter or leave the shop.

10. Please report to your host any conditions you observe that appear to be hazardous.

11. If you are injured while visiting us report it to your host. Injuries include but are not limited to, cuts, strains and objects in the eye.

12. In the case of the need for emergency evacuation follow procedures outlined in Chapter Seven - Facility Evaluation and Emergency Preparedness

Thank you for visiting our shop. We hope and trust you were satisfied with our facility and work or that you will tell us if you were not. Please return any safety equipment we have provided for you and continue to have a safe day. In particular drive safely.

On the back of this sheet, show a schematic of the facility with exits, fire extinguishers, lavatories, and other safety equipment, such as eyewash stations.
Chapter Five
PERSONAL PROTECTIVE EQUIPMENT (PPE)

PURPOSE
The purpose of this chapter is to establish and document practices for the use of personal protective equipment.

PPE will be used where required by law, where exposure to a hazard entails the threat of injury or illness or where there is a potential for damage or contamination to property or the environment.

REFERENCES
OSHA 29 CFR 1910 Subpart I Appendix B

RESPONSIBILITIES
The <Safety Officer> will conduct a hazard assessment for tasks performed by employees and determine the PPE to be required.

<Company> will provide PPE required for tasks performed in the course of company business, except the employee is responsible to provide clothing (pants, shirts and boots, appropriate for the work where such clothes are considered normal attire). Where PPE is subject to wear, the company will provide replacement PPE as required. The company may require compensation for PPE that has been abused, lost or suffered abnormal wear due to the action or negligence of the employee.

Employees performing tasks for which PPE has been determined to be required will use the required PPE properly, as trained and as intended by the company and PPE manufacturer. Employees will inspect the PPE before each use. PPE found to be deficient will be reported and returned for replacement or repair.

PPE REQUIREMENTS
Hazard assessments of the shop have been conducted and the PPE listed below is required:

<table>
<thead>
<tr>
<th>Who</th>
<th>Part/Hazard/Source</th>
<th>PPE</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Employees and Visitors</td>
<td>Scrapes and cuts.</td>
<td>Long pants and shirts with sleeves.</td>
<td>Reasonably well fitting and no tears or frays that will impair protection or tangle in equipment or on the work.</td>
</tr>
<tr>
<td>All Employees and Visitors</td>
<td>Head/impact, penetration.</td>
<td>Hardhat</td>
<td>Z89.1-2014 Type I or II Class G or better.</td>
</tr>
</tbody>
</table>

* additional protection required of some employees.
<table>
<thead>
<tr>
<th>Who</th>
<th>Part/Hazard/Source</th>
<th>PPE</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Employees and Visitors</td>
<td>Ears/noise.</td>
<td>Hearing protection/disposable earplugs</td>
<td>S3.19, S12.6 29CFR 1910.95</td>
</tr>
<tr>
<td>All Employees</td>
<td>Feet/compression / work product and industrial trucks</td>
<td>Hard-toed shoes</td>
<td>Z41.1 29CFR 1910.136</td>
</tr>
<tr>
<td>All Employees</td>
<td>Hands/cuts penetration, abrasion Burns</td>
<td>Gloves</td>
<td>Gloves will be provided and used when handling sharp objects. Leather gloves for welding burning and heating.</td>
</tr>
<tr>
<td>Welders</td>
<td>Eyes</td>
<td>Welder’s face shields</td>
<td>Z87.1 No. 10 or higher 29CFR 1910.133</td>
</tr>
<tr>
<td>Welders</td>
<td>Face</td>
<td>Welder’s face shields*</td>
<td>* Face shields in well-ventilated areas; face shields w/positive air supply in unventilated areas.</td>
</tr>
<tr>
<td>Welders</td>
<td>Skin</td>
<td>Leathers</td>
<td>Leathers will be worn when welding out of position.</td>
</tr>
<tr>
<td>Welders</td>
<td>Toxic fume</td>
<td>Fitted respirators</td>
<td>Z88.2 -2015</td>
</tr>
<tr>
<td>Thermal Cutters</td>
<td>Eyes</td>
<td>Burner’s goggles</td>
<td>Z87.1 number 3 or higher 29CFR 1910.133 (10 or higher for plasma)</td>
</tr>
<tr>
<td>Painters</td>
<td>Eyes/paint spray</td>
<td>Goggles</td>
<td>29CFR 1910.133</td>
</tr>
<tr>
<td>Painters</td>
<td>Respiratory/paint spray/toxic fume</td>
<td>Fitted respirators</td>
<td>Z88.2 -2015</td>
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<tr>
<td>Painters</td>
<td>Chemical contact</td>
<td>Painter’s coveralls and chemical resistant gloves</td>
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### Sample Safety Program Elements for Structural Steel Fabrications

<table>
<thead>
<tr>
<th>Who</th>
<th>Part/Hazard/Source</th>
<th>PPE</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Blast Machine Operators</td>
<td>Ears/noise</td>
<td>Hearing Protection</td>
<td>29CFR 1910.95</td>
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<tr>
<td>Blast Machine Operators</td>
<td>Eyes/airborne particulates</td>
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<td>29CFR 1910.133</td>
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<td>Respiratory - Silica</td>
<td>Respirator</td>
<td>29CFR 1910.94</td>
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<td>29CFR 1910.1000</td>
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<td>Table Z-3</td>
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<tr>
<td>Chippers/Air Arc Gougers</td>
<td>Ears/ Noise</td>
<td>Hearing Protection</td>
<td>29CFR 1910.95</td>
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</table>
Chapter Six
SAFETY PRACTICES FOR SELECTED PROCESSES

PURPOSE

Certain common processes demand specific practices to assure safe operation. This section includes description of those practices.

NEW OR REVISED PROCESSES

Steel fabrication demands flexibility in shop processes. Projects occasionally require procedures that have not been conducted before or have to be conducted differently than before. For example, piece size or shop schedule may demand painting in a fabrication area. When a changed condition occurs, the following steps will be taken:

• Conditions demanding new or revised process practices will be noted by the <Plant Manager> or Supervisor.

• The practice variation will be tentatively developed by the <Plant Manager>.

• The tentative practice variation will be evaluated by the <Plant Manager>, the Engineering Manager and the <Safety Officer> for compliance with project requirements and hazard identification and reduction.

• The revised process will be communicated to affected employees.

PAINTING

Painting is a process that involves many of the elements in this program. Personnel involved in painting shall pay particular attention to PPE, HazComm and fire prevention requirements of the program.

Management shall designate an area for painting operations. Spraying shall not be conducted outside a designated spraying area.

All spraying areas shall be maintained so that the accumulation of deposits of combustible residues does not create a hazard. Scrapers or other tools that are used for cleaning purposes shall be made of non-sparking material.

After cleaning, residue scrapings and debris contaminated with residue shall be immediately removed from the premises and properly disposed of as defined in the HAZMAT program.

Approved metal waste cans shall be provided when rags or waste are impregnated with finishing material. And all such rags or waste shall be deposited in the waste cans immediately after use. The contents of waste cans shall be disposed of at least once daily as defined in the HAZMAT program.

The clothing of painting employees shall not be left on the premises for more than 24 hours, unless the clothing is kept in metal lockers. Disposable paint suits shall be disposed of in approved metal waste cans.
The use of solvents for cleaning operations shall be restricted to solvents that have flashpoints of not less than 100 °F; however, for cleaning spray nozzles and auxiliary equipment, solvents which have a flashpoint not less than the flashpoints of solvents that are normally used in spraying operations may be used. Such cleaning shall be done in a safe area.

**STORAGE OF PAINTS AND SOLVENTS**

Flammable and combustible liquids shall be stored in the paint storage area. Only enough paints and solvents will be brought into the shop for one day’s use. Storage regulations depend on the amount of paint stored, therefore, <Company> will store the minimum paint necessary to function effectively. Storage must comply with OSHA 1910.106.

The original closed container, an approved portable tank, or an approved safety can, shall be used for bringing flammable or combustible liquids into the designated painting area. The secondary container will be labelled as required in the HAZCOM program requirements.

The withdrawal of paints and solvents from containers having a capacity of more than 60 gallons shall be by approved pumps.

When paints and solvents are transferred from one metal container to another, both containers shall be effectively bonded to prevent discharge of static electricity.

The container feeding spray nozzles shall be kept covered.

**RESPIRATOR PROGRAM**

**Purpose**

This program is designed to help reduce employee exposure to occupational dust, fumes, mists, radionuclides, gases and vapors. The primary objective is to prevent excessive exposure to these contaminants. When effective engineering controls are not feasible, use of personal respiratory protective equipment may be required to achieve this goal.

**Responsibilities**

**Management**

- <Plant Manager> will determine what specific applications require use of respiratory equipment. He/she will ensure that proper respiratory equipment is provided to meet the needs of each specific application. Employees will be provided with adequate training and instructions on all equipment.

**Management / Supervisors**

- Department supervisors are responsible for ensuring that all personnel under their control are cognizant of the respiratory protection requirements for the areas in which they work. They also are responsible for ensuring that their subordinates comply with all aspects of this respiratory program, including respirator inspection and maintenance.

**Employees**

- The responsibility of the employee is to have an awareness of the respiratory protection requirements for his work area (as explained by management). Employees also are responsible for wearing the
appropriate respiratory equipment according to proper instructions and for maintaining the equipment in a clean and operable condition.

**Employee Medical Monitoring**

Pre-employment physical examinations are conducted on all employees to assure that they are in an adequate health condition (physically able to perform their work and can use respiratory equipment as required).

**Respirator Selection**

A hazard evaluation has been conducted for each job. Based on the hazards, respirators approved by NIOSH/MSHA have been selected in accordance with OSHA regulations.

**Employee Training**

All employees conducting tasks or in the vicinity of potentially hazardous fumes and gases will receive training on the use of respirators. An initial training on applicable regulations, their responsibilities in the respiratory program, the hazards present and their effect on the wearer if the respirator is not worn properly, respirator selection and use, engineering and administrative controls being used and the needs for respirators. All employees will be trained to handle emergency situations that may arise while using respirators.

Each employee, upon assignment to a specific respirator, will be instructed by his department supervisor regarding that respirator. Training will include proper use, fit testing, limitations, and care of the respirator.

**Employee Fit Testing**

Employees required to wear a respirator will be fitted properly and tested for a face seal prior to use of the respirator in a contaminated area. Manufacturer’s fitting instructions will be used. In addition, any fit testing required by OSHA standards will be performed to supplement the manufacture’s tests.

**Respirator Inspection and Maintenance**

- The wearer of a respirator will inspect it daily whenever it is in use.
- The department supervisor will inspect it periodically.
- The assigned employee will clean respirators not discarded after one shift of use on a daily basis according to the manufacturer’s instructions.
- Respirators not discarded after one shift use will be stored in a suitable airtight container away from areas of contamination.
- Whenever feasible, respirators not discarded after one shift use will be marked or stored in such a manner to assure that they are worn only by the assigned employee. If use by more than one employee is required, the respirator will be cleaned and disinfected between uses.

**Air Hoses**

- All air hoses shall be equipped with a nozzle restricting the discharge to 30 psig (1910.242(b)).
- Never look directly into the nozzle.
- Never blow air towards anyone.
- Compressed air should be utilized for cleaning purposes only.
INDUSTRIAL POWERED TRUCK

• Only drivers authorized by <Company>, trained in the safe operation of industrial powered trucks (29CFR 1910.178) shall be permitted to operate such vehicles. Drivers shall not operate trucks other than those for which they are authorized. Trainees may be authorized to operate trucks provided they are under supervision.

• Drivers shall check the vehicle at least once per day. Inspections shall be in compliance with the manufacturer’s operator manual. It is found to be unsafe, the matter shall be reported immediately to their supervisor, and the vehicle shall not be put into service again until it has been made safe. Attention shall be given to the proper functioning of tires, horns, lights, battery, controller, brakes, steering mechanism and the lift system of fork lifts (fork chains, cable and limit switches).

• Vehicle shall not exceed the authorized or safe speed, always maintaining a safe distance from other vehicles, and all established traffic regulations shall be observed. For trucks traveling in the same direction, a safe distance may be considered to be approximately 3 truck lengths or preferably a time lapse of 3 seconds before passing the same point. Exercise extreme care when cornering. Sound horn at blind corners and when entering the shop from outside.

• No riders shall be permitted on vehicles.

• Stunt driving and horseplay are prohibited.

• Loaded vehicles shall not be moved until the load is safe and secure.

• When leaving a vehicle unattended, (operator out of view or not in the immediate vicinity) the power shall be shut off, brakes set, the mast brought to the vertical position, and the forks left in the down position. When left on an incline, the wheels shall be blocked.

• Whenever an industrial powered truck is unmanned, the load engaging means shall be fully lowered, control neutralized, and the brakes set to prevent movement.

• Trucks shall not be driven up to anyone standing in front of a bench or other fixed object of such size that the person could be caught between the truck and the object.

• Operators shall look in the direction of travel and shall not move a vehicle until certain that all persons are in the clear.

• Vehicles shall not be operated on floors, sidewalk doors, or platforms that will not safely support the vehicle, empty or loaded. Any damage to industrial powered trucks and/or structures shall be reported immediately to the supervisor.

• Employees shall not ride on the forks of lift trucks.

• The forks shall always be carried as low as possible, consistent with safe operation.

• Extreme care shall be used when lifting loads.

• Vehicles shall not be driven in and out of highway trucks and trailers at unloading docks until such trucks are securely blocked and brakes set.

• Employees shall not place any part of their body outside the running lines of the industrial powered truck or between mast uprights or other parts of the truck where shear or crushing hazards exits.

• Employees shall not be allowed to stand, pass, or walk under the elevated portion of any industrial powered truck, loaded or empty, unless it is effectively locked to prevent it from falling.

• The width of one tire on the industrial powered truck shall be the minimum distance maintained by the truck from the edge while it is on any elevated dock, platform or freight car.

• Trucks shall not be loaded in excess of their rated capacity.

• No truck shall operate with a leak in the fuel system.

• Extreme care should be taken when tilting loads. Elevated loads shall not be tilted forward except for when the load is being deposited onto a storage rack or equivalent. When stacking or tiering, backward tilt shall be limited to that necessary to stabilize the load.
VEHICLE SAFETY POLICY

All employees operating company vehicles or operating personal vehicles on company business are subject to the following policy:

- You are authorized only to operate the vehicle assigned to you by your supervisor. Vehicles should be used only for conducting the necessary company business that you have been specifically assigned. Supervisors must approve all tasks requiring the use of company vehicles before they are performed.
- You must have a valid driver’s license and the correct license needed for the vehicle you have been assigned. Notify your supervisor and do not operate the vehicle if you are not properly licensed.
- Never operate a vehicle unless you have received training in the inspection, operation and maintenance of the vehicle you have been assigned and understand what is required of you.
- Inspect your assigned vehicle daily and inspect the load prior to each trip following the established company procedure. Never operate a vehicle that does not pass your inspection. Document deficiencies. Document the results of truck inspection monthly on the appropriate form and give it to your supervisor.
- Be sure all necessary documentation (driver's license, owner card, insurance card, etc.) is in your possession.
- Drivers and passengers must wear safety belts and shoulder harnesses at all times. Do not operate a vehicle unless you and your passengers are wearing safety belts and shoulder harnesses.
- Do not allow anyone to operate your assigned vehicle or be a passenger unless authorized by your supervisor.
-Immediately notify your supervisor of any legal citations received while operating a vehicle on or off the job.
-Observe the company “Substance Abuse” policy at all times. Do not operate a vehicle under the influence of alcohol, illegal drugs, or hazardous prescription medication. Do not ride with anyone under the influence of alcohol, illegal drugs, or hazardous prescription medication.
- Observe the company “Distracted Driving” policy at all times.
- Obey all traffic laws, and operate your vehicle in a safe and courteous manner at all times.
- Report all accidents according to the following procedures:

A. Driver Conduct at the Scene of an Accident

1. Although the ultimate objective of a Fleet Loss control program is to prevent accidents, the fact remains that they still occur.
2. To minimize the results of an accident, the driver must prevent further damages or injuries and obtain all pertinent information and report it accurately.
3. A Vehicle Accident Report packet is located in the glove compartment of the vehicle. This packet contains:
   - Driver’s Report of Motor Vehicle Accident
   - Witness Information Cards
   - List of Insurance Claims Offices
   - Traffic Accident Exchange Information Forms

B. What Your Driver Should Do After An Accident

1. Take immediate action to prevent further damage or injury at the scene of the accident.
2. Call the police.
   - If someone is injured, request medical assistance.

3. If the driver cannot get to a nearby phone or if the cellular phone in the vehicle is inoperative, he/she should write a note giving location and seriousness of the accident and give it to a motorist and ask him/her to notify police.

4. The vehicle should not be left unattended except in extreme emergency.

C. Exchange "Traffic Accident Exchange Information" Forms with Other Driver(s)

   The driver should give identifying information to the other party involved, but should make no comments about assuming responsibility.

D. Secure Names and Addresses of All Witnesses

   1. Witnesses should be asked to complete a Witness Information Card.
   2. If there are no witnesses, the name and address of the first person to arrive at the scene should be obtained.

E. Complete the “Driver’s Report of Motor Vehicle Accident” Form

   1. Drivers should remember the following general rules for filling in the report:
      - Print or write legibly.
      - Follow instructions to the letter.
      - Answer all questions completely. If unable to answer any question, mark “not known”.
      - Use additional sheets of paper if space is lacking for necessary information.

F. Report the Accident

   1. The driver should call the company immediately in the event of any accident.
   2. The accident should be reported to the nearest insurance claims office as listed in the Vehicle Accident Report packet.
Auto Accident Report Form
Keep In Your Glove Box
When an accident occurs:

<table>
<thead>
<tr>
<th>First Steps</th>
<th>Do Not Say</th>
<th>While Still At the Scene</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Remain calm</td>
<td>• It’s all my fault, (even if it is).</td>
<td>• Get as much information as possible on this report.</td>
</tr>
<tr>
<td>• Get to a safe place</td>
<td>• My insurance will pay for everything.</td>
<td>• Take Pictures</td>
</tr>
<tr>
<td>• Check for injuries</td>
<td>• It’s OK, I have full coverage.</td>
<td>• When the police come, cooperate and tell them what you know.</td>
</tr>
<tr>
<td>• Administer First Aid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Call police/EMT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Accident Details

| Day/Date/Time AM/PM          |                                                  |
|------------------------------|                                                  |
| Weather/Road Conditions      |                                                  |
| Location of Accident         |                                                  |
| Accident Details             |                                                  |

Damage Descriptions

<table>
<thead>
<tr>
<th>Your Vehicle</th>
<th>Other Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Towing Company Name &amp; Phone</td>
<td>Towing Company Name &amp; Phone</td>
</tr>
</tbody>
</table>

Other Driver/Vehicle Information

<table>
<thead>
<tr>
<th>Owner's Name:</th>
<th>Owner's Address:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner's Phone:</td>
<td></td>
</tr>
<tr>
<td>Vehicle Make:</td>
<td></td>
</tr>
<tr>
<td>Vehicle Model &amp; Year:</td>
<td></td>
</tr>
<tr>
<td>Vehicle Color:</td>
<td></td>
</tr>
<tr>
<td>License Plate Number</td>
<td></td>
</tr>
<tr>
<td>Insurance Company:</td>
<td></td>
</tr>
<tr>
<td>Agent Name &amp; Phone:</td>
<td></td>
</tr>
<tr>
<td>Other Drivers Name:</td>
<td></td>
</tr>
<tr>
<td>Other Drivers Address:</td>
<td></td>
</tr>
<tr>
<td>Other Drivers Phone:</td>
<td></td>
</tr>
</tbody>
</table>
### Passengers/Injuries:

<table>
<thead>
<tr>
<th>Your Vehicle</th>
<th>Other Vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td># Passengers:</td>
<td># Passengers:</td>
</tr>
</tbody>
</table>

### Police Information

<table>
<thead>
<tr>
<th>Officer Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Department:</td>
<td></td>
</tr>
<tr>
<td>Phone:</td>
<td></td>
</tr>
<tr>
<td>Badge Number:</td>
<td></td>
</tr>
<tr>
<td>Other Info:</td>
<td></td>
</tr>
</tbody>
</table>

### Witness Information

<table>
<thead>
<tr>
<th>Name:</th>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>Address:</td>
</tr>
<tr>
<td>Home</td>
<td>Home Phone:</td>
</tr>
<tr>
<td>Work</td>
<td>Work Phone:</td>
</tr>
</tbody>
</table>

### Sketch The Accident Scene:
<Company> Distracted Driving Policy

Please read the Distracted Driving Policy, sign and return to your supervisor.

In order to increase employee safety and eliminate unnecessary risks behind the wheel, <Company> has enacted a Distracted Driving Policy, effective <Date>. We are committed to ending the epidemic of distracted driving, and have created the following rules, which apply to any employee operating a company vehicle or using a company-issued cell phone while operating a personal vehicle:

- Company employees may not use a hand-held cell phone while operating a vehicle – whether the vehicle is in motion or stopped at a traffic light. This includes, but is not limited to, answering or making phone calls, engaging in phone conversations, and reading or responding to emails, instant messages, and text messages.

- If company employees need to use their phones, they must pull over safely to the side of the road or another safe location.

- Additionally, company employees are required to:
  - Turn cell phones off or put them on silent or vibrate before starting the car.
  - Consider modifying voice mail greetings to indicate that you are unavailable to answer calls or return messages while driving.
  - Inform clients, associates and business partners of this policy as an explanation of why calls may not be returned immediately.

- Failure to abide by this policy will result in disciplinary action up to and including dismissal.

I acknowledge that I have received a written copy of the Distracted Driving Policy, that I fully understand the terms of this policy, that I agree to abide by these terms, and that I am willing to accept the consequences of failing to follow the policy.

__________________________________________________________________________

Employee Signature

__________________________________________________________________________

Date

__________________________________________________________________________

Employee Name (printed)
Chapter Seven
FACILITY EVALUATION AND EMERGENCY PREPAREDNESS

EMERGENCY PREPAREDNESS

EMERGENCY ACTION PLAN

Purpose
To minimize injury in the event of an emergency.

Responsibility
The <Plant Manager> will cause the emergency signal to be sounded and will advise supervisors of the type of emergency. The <Plant Manager> will advise supervisors when the emergency action plan is no longer in effect and workers can return to their place of work. In the event the <Plant Manager> is not readily available any supervisor aware of the situation is to declare the emergency.

Supervisors will advise their employees when an emergency is occurring and the plan is in effect and what type of emergency is occurring. Supervisors will, when possible without endangering themselves, assure that their employees have complied with the emergency action plan.

Employees will be aware of and comply with the emergency action plan when directed to do so.

PROCEDURES FOR EVACUATION

Fire Emergency in the Plant
If it can be accomplished safely, the first one or two employees to see the fire may use appropriate means to fight the fire after they have reported it to a supervisor.

All employees not fighting the fire shall leave the plant by the nearest exit and walk immediately to the designated muster area. Employees are to remain in the designated muster area until they are directed to return to work or go elsewhere.

Fire Emergency in the Office
If it can be accomplished safely, the first one or two employees to see the fire may use appropriate means to fight the fire after they have reported it to a supervisor.

All employees not fighting the fire shall leave the office building by the nearest exit and walk immediately to the designated muster area. Employees are to remain in the designated muster area until they are directed to return to work or go elsewhere.

Wind Emergency (Hurricane or Tornado)
All employees are to proceed to the designated area and remain until directed otherwise.
Noxious or Flammable Chemical Exposure
All employees are to exit the building from the nearest exit and proceed to the boundary of the property farthest upwind of the chemical release.

Critical Plant Operations
There are no plant operations critical enough to prevent evacuation in the event of an emergency.

Accounting for Employees
Each supervisor will, if safe, assure their area of the building has been evacuated. The supervisor will check any restrooms and storage or equipment areas in or adjacent to their work area. The supervisor will then proceed to the place employees have assembled. The supervisor will write a list of each employee in their supervision who is present in the assembly area. They shall then list employees known to be absent. Any employees who are not accounted for shall be reported to the <Plant Manager>.

Employees Performing Rescue or Medical Duties
Any employee seeing a need and who is capable of providing rescue or first aid services may do so. Every reasonable attempt should be made to protect the responder such as by obtaining and wearing Blood-borne Pathogen protection. As soon as injured personnel are removed from harms way and necessary action to prevent immediate danger to life and health has been rendered the responder is to evacuate the building in accordance with the emergency action plan in effect and report his actions to his supervisor.

Action Plan Information Source
Personnel seeking further information about the Emergency Action Plan may contact the <Safety Officer>.

Training
See Chapter 3 Training.
Sample Safety Program Elements for Structural Steel Fabrications

Sidewalk Evacuation Assembly Area

E=exit
T=Truck Door
F=Fire Extinguisher
MS=Medical Supplies
SAFETY AND HEALTH INSPECTIONS

- All Foremen shall perform a safety inspection of their department weekly.
- All Foremen, with the assistance of the <Safety Officer>, will develop a department specific self-inspection checklist.
- Foremen will take corrective action within his/her authority as soon as deficiencies are identified.
- The <Safety Officer> shall inspect the entire shop monthly.
- The <Safety Officer> will maintain a file of all inspections for at least two years.

Definitions of Corrective Measures:

- **Imminent Danger:**
  A condition or practice with potential loss of life or body part, permanent disability, and/or extensive loss of structure, equipment, or material.

- **Serious Hazard:**
  A condition or practice with potential for minor non-disability injury or illness resulting in temporary disability or property damage that is disruptive but less severe than imminent danger.

- **Other than Serious Hazard:**
  A condition or practice with potential for minor non-disability injury or illness or non-disruptive property damage.

Corrective action should follow this timetable:

- **Imminent Danger:**
  As soon as detected and verified. Immediately after verification of an imminent danger situation, the hazard will be abated or employees removed from site with the exception of personnel required to accomplish abatement; in situations where it is not possible to affect an immediate permanent solution, suitable interim corrections shall be implemented; e.g., barricades, lookouts, etc.

- **Serious Hazard:**
  As soon as detected and verified, the hazard will be corrected to the extent required to reduce the hazard to the classification of other than serious. The partially corrected hazard will be abated in a timely manner, but within 15 calendar days of original detection and verification.

- **Other than Serious Hazard:**
  In a timely manner, but within 30 calendar days of detection and verification. In each event, immediate steps must be taken to render the situation safe until a permanent solution can be implemented.

SHOP AND DEPARTMENT INSPECTIONS

Shop and department inspections are conducted periodically. Any of the provisions of the <Company> Safety Program are subject to inspection. Two checklists are provided as aids for inspectors.

Specific deficiencies are to be reported to the area supervisor. Deficiencies with the potential to cause imminent danger or serious hazards are to be reported immediately upon discovery. The inspector may stop work causing imminent danger prior to reporting to the supervisor. Specific deficiencies shall be documented in a Safety Inspection Summary report (form attached).
CHECKLIST FOR SHOP SAFETY AND HEALTH INSPECTION

Facility Evaluation Checklist

**Personal Protective Equipment Program**
- Proper personal protective equipment such as hardhats, appropriate footwear, safety eye protection, respiratory protection, etc., is provided where required by the hazard of the job.
- Use of such equipment where required is enforced.
- The equipment is properly maintained.

**Equipment Guarding/Maintenance**
- Guards suitable to effectively eliminate the hazard are properly installed on all mechanical equipment where an exposure exists, i.e., belts, chains, gears, machinery such as drills, grinders, saws, etc.
- All electrical saws, machines, etc., have power interrupters to prevent accidental startup after a shut-down.
- Electrical cords positions or protected. Weld leads neat.
- Enforcement program to keep guards in place.
- Portable power tools grounded or double insulated, good condition. 3-wire extension cords. Ground fault outlets in wet areas.
- Training program to ensure safe operation.
- Effective preventive maintenance program on equipment. Maintenance record maintained on all critical equipment.

**Equipment/Premises**
- Ground level walk/work/travel ways/parking areas maintained in good condition, i.e., kept dry, uncongested, smooth and level.
- Exits are clearly marked and aisles are free of obstructions.
- Ladders/scaffolds maintained in good condition. Use restricted to authorize employees. Approved scaffold type only.
- All areas properly illuminated.
- Cranes, hoisting equipment and lift trucks maintained in good condition. Scheduled checklist followed.
- Buttons on cranes and other lifting devices are clearly marked as to their function and direction. Employees are properly trained in operation.
- All operators have been properly trained in the use of lift trucks and hoisting equipment. Applicable license/permits.
- Welding/torch cutting operations performed safely (employee properly dressed, has inspected hoses, provided ventilation, cylinders secure, valves turned off when job completed, caps in place, cylinders segregated, kept away from flammable materials).
- Spray painting segregated, appropriate ventilation, appropriate electrical wiring, and appropriate personal protective equipment.
- Electrical breaker boxes and switches are clearly marked as to function.
- Electrical service adequate and appropriate, i.e., adequate voltage, no overloading, adequate/secure outlets, explosion-proof as required, ground fault, etc.
- NFPA compliant Arc Flash labeling is present on all disconnects, breaker boxes, fuse boxes and electrical equipment.
- Housekeeping program for all areas.

**Facility Evaluation Checklist (continued)**

<table>
<thead>
<tr>
<th>Material Handling</th>
<th>Fire Prevention and Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Continuing programs of recognition, instruction and enforcement in the safe movement of equipment and materials with provisions for mechanical handling equipment where possible.</td>
<td></td>
</tr>
<tr>
<td>- Fire suppression equipment available where required, properly maintained in operating condition, i.e., fire extinguishers, sprinklers, etc.; maintenance log for sprinkler system, signs to locate fire extinguishers, employees trained in use.</td>
<td></td>
</tr>
<tr>
<td>- Covered, noncombustible trash containers sufficient in number and emptied regularly.</td>
<td></td>
</tr>
<tr>
<td>- Oil/paint/solvent soiled rags stored in covered U.L. listed metal containers and emptied daily.</td>
<td></td>
</tr>
<tr>
<td>- Gasoline and other highly flammable fuel/solvents never used for parts cleaning.</td>
<td></td>
</tr>
<tr>
<td>- Flammable liquids stored properly, provision for bonding and grounding. U.L. listed safety cans provided and materials available to clean up soils.</td>
<td></td>
</tr>
<tr>
<td>- Opened flammable liquid containers stored in approved U.L. listed storage cabinets.</td>
<td></td>
</tr>
<tr>
<td>- Combustible and hazardous materials stored away from flames, sparks and other heat sources.</td>
<td></td>
</tr>
<tr>
<td>- No smoking areas designated and signs posted.</td>
<td></td>
</tr>
</tbody>
</table>
## Facility Inspection—Alternative

Department or Area: ________________________  Inspector: ________________  Date: __________

(S) Indicates Satisfactory  
(U) Indicates Unsatisfactory

<table>
<thead>
<tr>
<th>A. Orderliness, Cleanliness (cluttered, out of place, unnecessary, dirty, defaced, greasy)</th>
<th>F. Light and Ventilation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Floors, aisles, storage space</td>
<td>1. Conditions of fans, blowers, hoods, fixtures and vents</td>
</tr>
<tr>
<td>2. Trucks, trailer, conveyors</td>
<td>2. Adequate light, air, ventilation</td>
</tr>
<tr>
<td>3. Desks, files, supervisor’s areas offices</td>
<td>3. Not obstructed by dirt, etc.</td>
</tr>
<tr>
<td>4. Corners, out-of-way places</td>
<td></td>
</tr>
<tr>
<td>5. Machines, furnaces</td>
<td></td>
</tr>
<tr>
<td>6. Workplaces, tables, benches</td>
<td></td>
</tr>
<tr>
<td>7. Tool and supply cupboards or containers</td>
<td></td>
</tr>
<tr>
<td>8. Tool cribs or areas</td>
<td></td>
</tr>
<tr>
<td>9. Mechanic’s benches or areas</td>
<td></td>
</tr>
<tr>
<td>10. Washrooms, toilets, fountains</td>
<td></td>
</tr>
<tr>
<td>11. Lockers—personal</td>
<td></td>
</tr>
<tr>
<td>12. Yard areas</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Scrap and Rubbish</th>
<th>G. Maintenance (repairs, overhauls, replacements)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stored in proper containers</td>
<td>1. Floors, doors, walls, windows</td>
</tr>
<tr>
<td>2. Rubbish in scrap containers</td>
<td>2. Wiring, service pipes, etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Power Hand Tools</th>
<th>H. Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adequate for purpose</td>
<td>1. Access to fire extinguisher</td>
</tr>
<tr>
<td>2. In good repair</td>
<td>2. First aid supplies accessible</td>
</tr>
<tr>
<td>3. Properly stored</td>
<td>3. Eyewash/shower</td>
</tr>
<tr>
<td>5. Ground prongs on cords</td>
<td>5. AED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D. Materials</th>
<th>I. Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Properly piled and blocked</td>
<td></td>
</tr>
<tr>
<td>2. Properly identified (labeled)</td>
<td></td>
</tr>
</tbody>
</table>
### Facility Inspection Summary Report

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>Dept. Title</td>
<td></td>
</tr>
<tr>
<td>Dept. Manager</td>
<td></td>
</tr>
<tr>
<td>Date of Inspection</td>
<td></td>
</tr>
<tr>
<td>Inspector</td>
<td></td>
</tr>
<tr>
<td>Deficiency(s)</td>
<td></td>
</tr>
<tr>
<td>Recommended Corrective Action</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Corrective Action Taken</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>

**COPIES:**

<General Manager>
<Plant Manager>
<Safety Officer>
FILE
NEW EQUIPMENT ACCEPTANCE

Purpose
To assure all new equipment and processes meet appropriate OSHA and industry safety standards.

Scope
All new or modified equipment. Modifications include changes in usage.

Procedures
<Safety Officer> will be notified of any planned change and/or addition to the manufacturing or process.

<Safety Officer> will ensure that equipment or processes introduced meet OSHA and industry safety standards.

Upon notification, <Safety Officer> shall initiate a review at three stages:

- Specification stage
- Installation stage
- Production stage

<Safety Officer> will:

- Evaluate the equipment (a checklist is attached as an aid).
- Develop Lockout/Tagout procedure for the new equipment.
- Develop training materials necessary to operate the equipment.

All employees who may in any way be affected by new equipment, procedures or processes shall be trained in all appropriate safety procedures relating to the new equipment, procedures or processes.
## NEW EQUIPMENT/PROCESS SAFETY CHECKLIST

**Date:** ____________________________  **Auditors Present:** ____________________________________________

**Name of New Equipment or Process:** ____________________________________________________________

**Supervisor Responsible for Operations:** __________________________________________________________

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>List any Hazardous Materials Used:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Does equipment have lock-out capability?</td>
</tr>
<tr>
<td>3.</td>
<td>Has adequate clearance been provided for any electrical panels or access doors?</td>
</tr>
<tr>
<td>4.</td>
<td>Are aisles or restricted areas well marked?</td>
</tr>
<tr>
<td>5.</td>
<td>Are specific fire protection requirements needed or mandated by standard?</td>
</tr>
<tr>
<td>6.</td>
<td>Are all moving, exposed components of machine guarded?</td>
</tr>
<tr>
<td>7.</td>
<td>Are hand or portable tools U.L. listed and safe for industrial use?</td>
</tr>
<tr>
<td>8.</td>
<td>Is equipment U.L. listed?</td>
</tr>
<tr>
<td>9.</td>
<td>Are controls consistent with appropriate safety standards (ANSI B11)?</td>
</tr>
<tr>
<td>10.</td>
<td>Are all material handling devices (hoists, etc.) properly rated and marked?</td>
</tr>
<tr>
<td>11.</td>
<td>Is personal protective equipment required (safety glasses, etc.)?</td>
</tr>
<tr>
<td>12.</td>
<td>Will this operation create hazardous waste?</td>
</tr>
<tr>
<td>13.</td>
<td>Is the lighting adequate?</td>
</tr>
<tr>
<td>14.</td>
<td>Is the ventilation adequate?</td>
</tr>
<tr>
<td>15.</td>
<td>Is fire protection adequate?</td>
</tr>
<tr>
<td>16.</td>
<td>Is there a possibility of spills and has secondary containment been provided?</td>
</tr>
<tr>
<td>17.</td>
<td>Have operators received Safety Training?</td>
</tr>
<tr>
<td>18.</td>
<td>Does the maintenance manual list any safety precautions unique to this equipment?</td>
</tr>
<tr>
<td>19.</td>
<td>Is there any evidence of damage, frayed wires, leaks, or improper assembly of equipment?</td>
</tr>
<tr>
<td>20.</td>
<td>Are the controls OSHA compatible?</td>
</tr>
<tr>
<td>21.</td>
<td>Has a preventive maintenance program been established and is it adequate?</td>
</tr>
<tr>
<td>22.</td>
<td>Are all appropriate labels, warnings and signage on and around the equipment in place and legible?</td>
</tr>
<tr>
<td>23.</td>
<td>Is NFPA Arc Flash labeling required?</td>
</tr>
</tbody>
</table>

*Sample Safety Program Elements for Structural Steel Fabrications*
OSHA INSPECTIONS

Purpose

OSHA conducts inspections on a random basis and when complaints are received. This procedure is to be followed when OSHA inspections occur. The procedure is intended to assure OSHA’s understanding of the <Company> safety program and that they draw appropriate conclusion in their evaluations.

Safety Inspections

1. When a safety inspection is to be performed by the above agency or any other agency, the <Plant Manager> and, when available, the <Safety Officer> must be notified. The enforcement officer usually will initiate the evaluation with an opening conference. <Company> personnel will cooperate with any reasonable request of the enforcement officer during the conference and the ensuing inspection.
2. During the inspection, a company representative must accompany the enforcement officer. If they take a photograph, the company representative should also take photographs of the same conditions with a time and date stamp.
3. Upon completion of the inspection, a closing conference must be held with the company to review findings and/or violations. The <Safety Officer> will attend if available. The company representative will advise the enforcement officer of any improper conclusions cited and will note any citations. The company representative will act professionally. Conflicts will be resolved after the conference, if necessary.

Formal Report/Citation

1. The agency’s formal report/citation will be sent to us through registered mail.
2. Upon receipt of the report, it shall be date stamped as received.
3. The report is to be forwarded to the <Safety Officer>.
4. The <Safety Officer> will forward a copy to the <President> and the <Plant Manager>.
5. The <Safety Officer> will post a copy on the shop bulletin board.
6. The <Safety Officer> will conduct an investigation of the violations with the <Plant Manager> and report to the <President>.
7. The <Safety Officer> and the <President> will decide whether to request a hearing and appeal the citations or accept the citations and correct the situation.
8. If the decision is made to accept the citations, the <Safety Officer> will complete the necessary paperwork and return it to the agency. If a fine has been accepted, the <Safety Officer> shall ensure that a check is issued to the appropriate agency.

Filing of Citations and Correspondence

1. All citations and correspondence shall be filed and maintained by the <Safety Officer>.
2. All citations shall be logged in the database for continuous records of violations.
Chapter Eight
SAFETY COMMITTEE

SAFETY COMMITTEE MISSION

The <Company> Safety Committee is to be a forum in which selected representatives of management and labor meet to proactively evaluate and effect improvement to all aspects of company safety.

COMMITTEE MEMBERSHIP

The committee shall be chaired by the <Safety Officer>. Management shall be represented by at least two supervisors. Labor shall be represented by at least two workers from different areas of the facility. Management representatives are selected by the <Plant Manager>. Labor representatives will be volunteers selected on the basis of familiarity with the workforce and shop practices.

MEETINGS

The committee will meet at least quarterly. The committee may conduct special meetings in response to incidents, changes in equipment or practices, changes in regulation or company policy, other special needs as agreed or determined by management.

The Committee Chair will announce meetings in advance of the scheduled meeting time. Announcements of regular meeting will include an agenda and background materials including the safety program element and Shop area to be evaluated. Announcements for special meetings will include the topic of that meeting and any necessary background material.

BALANCED RESPONSIBILITY

An efficient smoothly operating committee is one in which management and employees are in agreement as to the responsibilities of each. Both make every effort to carry out their responsibilities. The following is a model of a successful committee:

SAFETY COMMITTEE FUNCTIONS

1. Conduct regularly scheduled meetings for the purpose of discussing accident prevention methods, safety awareness activities, safety inspection results, injury and incident reports and investigation results.
2. Inspect a selected area of the facility to evaluate and respond to hazards and accident sources.
3. Evaluate accident and incident reports to develop recommendations to eliminate recurrence.
4. Provide input to supervisors in regard to safe working methods and practices.
5. Recommend changes to PPE or equipment to improve safety.
6. Recommend topics and material for recurrent training (toolbox talks).
7. Review and evaluate elements of this safety program and recommend improvements.
MODEL AGENDA

1. Old Business
   a. Reports of outstanding or ongoing activities

2. New Business
   a. Safety Awareness
      i. Comments on current activities
      ii. Recommendations for new activities
   b. Inspection of a selected area of the shop
      i. Findings
      ii. Recommended responses
   c. Evaluation of a selected section of the safety program
      i. Evaluation results
      ii. Recommendation for improvement
   d. Incident and Accident Reports
      i. Review OSHA log and any reports
      ii. Recommendations to prevent recurrence
   e. Other safety suggestions and recommendations
      i. Practice and procedure changes
      ii. Equipment, guarding, PPE recommendations
   f. Toolbox talk topics for the near future
Chapter Nine
ACCIDENT INVESTIGATION

PURPOSE

<Company> investigates accidents to isolate hazardous conditions and prevent recurrence.

POLICY

<Company> will investigate all events that cause recordable injuries or illnesses. The <Safety Officer> will be responsible for event investigations. <Company> employees will cooperate in investigations.

Non-recordable accidents, near misses and incidents with the potential to injure will be investigated by the supervisor and reported to the <Safety Officer> for possible review and corrective action.

Forms to guide investigation of accidents are attached.

Attributing causes to carelessness should be done only when other more specific causes are not discernable.

Instructing an employee “not to do it again” is not adequate. Explaining the accident cause or prohibiting a specific behavior may be sufficient where engineered solutions or changes to practice cannot be developed to eliminate the hazard.

Disregarding or minimizing the hazard potential of near misses is not acceptable.
### EMPLOYEE INCIDENT SURVEY

#### Administrative Information

<table>
<thead>
<tr>
<th>Employee:</th>
<th>Employee No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department:</th>
</tr>
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<tbody>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Date of Incident:</th>
<th>Date Reported:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time of Incident:</th>
<th>Time Reported:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Incident Location/Conditions

**Did the incident occur on the employer's premises?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of location of incident:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Address of location of incident:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identify weather/environmental conditions:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

#### Description of the Incident

**Events and conditions leading to the incident:**

**Describe how this specific injury/illness occurred:**

**What were you doing at the time of the incident?**

**Who Was Involved:**

**List other injured/ill employees:**

**List other employees involved in the incident:**

**List other injured/ill non-employees:**

**List witnesses to the incident:**

**List equipment and/or properly involved:**

---

Sample Safety Program Elements for Structural Steel Fabrications
**List damaged equipment/property and description:**

<table>
<thead>
<tr>
<th>Description:</th>
</tr>
</thead>
</table>

**Severity**

<table>
<thead>
<tr>
<th>Was the occurrence a result of an instantaneous event?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were you transferred to another job?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Did you lose consciousness?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Describe the location/extent of injury or illness:**

| Were you physically or mentally unable to perform all or any part of your normal assignment during any part of the workday or shift? | Yes | No |

**Treatment**

<table>
<thead>
<tr>
<th>Was first aid provided?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe first aid provided:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who provided the first aid?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Were professional medical services required?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who provided professional medical services?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Prevention**

<table>
<thead>
<tr>
<th>What was the cause of the incident?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>What corrective action was taken?</th>
</tr>
</thead>
</table>

**Additional Comments**

<table>
<thead>
<tr>
<th>Signature of Employee:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date:</th>
</tr>
</thead>
</table>
## MANAGEMENT INCIDENT SURVEY

### Administrative Information

<table>
<thead>
<tr>
<th>Supervisor:</th>
<th>Employee No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date of Incident:</th>
<th>Date Reported:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time of Incident:</th>
<th>Time Reported:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Incident Review and Classification

<table>
<thead>
<tr>
<th>Is this report for an:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have inconsistencies in incident reports been determined?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

Describe these inconsistencies and how they were resolved:

### Incident Cause

What is the immediate cause of the incident?

<table>
<thead>
<tr>
<th>How would you classify the immediate cause?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsafe Act</td>
</tr>
</tbody>
</table>

Describe preventative measures taken to address the immediate cause of the incident:

What was the underlying cause of the incident?

<table>
<thead>
<tr>
<th>How would you classify the underlying cause?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsafe Act</td>
</tr>
</tbody>
</table>

Describe preventative measures taken to address the underlying cause of the incident:

### Incident Evaluation

#### Severity Potential

- **Major** (The incident could have resulted in a permanent disability or fatality.)
- **Moderate** (The incident could have resulted in the hospitalization of an employee or a lost time accident.)
- **Minor** (The incident could have resulted in an occupational injury or illness.)

#### Recurrence Potential

<table>
<thead>
<tr>
<th>Probable</th>
<th>Unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have similar incidents occurred before?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Reasons for recurrence:
<table>
<thead>
<tr>
<th>Injured Employee:</th>
<th>Employee No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Incident:</td>
<td>Time of Incident:</td>
</tr>
</tbody>
</table>

**Injury I Illness Data**
- Collect statement from supervisor
- Collect statements from witnesses
- Collect statements from injured/ill employees
- Collect medical reports and statements

**Affected Body Part**

<table>
<thead>
<tr>
<th>Head</th>
<th>Eyes</th>
<th>Ears</th>
<th>Face</th>
<th>Chest</th>
<th>Back</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder</td>
<td>Lung</td>
<td>Abdomen</td>
<td>Groin</td>
<td>Hips</td>
<td>Elbow</td>
<td>Wrist</td>
</tr>
<tr>
<td>Hand</td>
<td>Finger</td>
<td>Knee</td>
<td>Ankle</td>
<td>Toe</td>
<td>Brain</td>
<td>Internal</td>
</tr>
<tr>
<td>Arms</td>
<td>Heart</td>
<td>Hearing</td>
<td>Multiple</td>
<td>Other:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OSHA Illness Classification**

<table>
<thead>
<tr>
<th>Occupational skin disease or disorder</th>
<th>Dust disease of the lungs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory disorder due to toxic agents</td>
<td>Poisoning (systematic effects of toxic material)</td>
</tr>
<tr>
<td>Disorder due to physical agents</td>
<td>Disorders associated with repeated trauma</td>
</tr>
<tr>
<td>All other occupational illness</td>
<td></td>
</tr>
</tbody>
</table>

**Accident Classification** (classify the injury/illness)

**Struck by:**
- Hand tool or machine
- Falling or flying object
- Rolling, sliding or tipping object
- Moving vehicle (pedestrian)
- Moving vehicle (occupant)
- Object handled by other person
- Other person
- No classification

**Struck against:**
- Objects being handled
- Contact with sharp objects
- Stationary objects
- Moving objects

**Caught in, between or under:**
- Machine or moving parts
- Non-powered apparatus
- Objects being handled
- No classification

**Slip, trip or fall:**
- On same level
- From elevation
- Stairs
- No classification

**Rubbed or abraded:**
- Fixed objects
- Objects being handled
- No classification
<table>
<thead>
<tr>
<th>MANAGEMENT INJURY SURVEY (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strain or overexerted:</strong></td>
</tr>
<tr>
<td>Lifting</td>
</tr>
<tr>
<td>Holding or carrying</td>
</tr>
<tr>
<td>Cumulative Trauma</td>
</tr>
<tr>
<td><strong>Contact (temperature extremes):</strong></td>
</tr>
<tr>
<td>Extreme heat</td>
</tr>
<tr>
<td>Chemical burn</td>
</tr>
<tr>
<td><strong>Occupational Disease (absorption thru):</strong></td>
</tr>
<tr>
<td>Inhalation/ingestion</td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td><strong>Miscellaneous:</strong></td>
</tr>
<tr>
<td>Contact with electric current</td>
</tr>
<tr>
<td>Stroke/heart attack</td>
</tr>
<tr>
<td>No classification</td>
</tr>
</tbody>
</table>
## SUPERVISOR'S INCIDENT SURVEY

### Administrative Information

<table>
<thead>
<tr>
<th>Supervisor:</th>
<th>Employee No:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of Incident:</th>
<th>Date Reported:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time of Incident:</th>
<th>Time Reported:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Incident Review and Classification

This report is for an:  
Accident  
Near Miss

### Incident Location/Conditions

Did the incident occur on the employer's premises?  
Yes  
No

<table>
<thead>
<tr>
<th>Name of location of incident:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address of location of incident:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Identify weather/environmental conditions:

### Description of the Incident

Events and conditions leading to the incident:

What was the underlying cause of the incident?

List injured/ill employees: (include SSN)

List other employees involved in the incident:

List injured/ill non-employees:

List witnesses to the incident:

List equipment and/or property involved:

List damaged equipment/property and description:
<table>
<thead>
<tr>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>What was the cause of the incident?</td>
</tr>
</tbody>
</table>

| What corrective action was taken? |

<table>
<thead>
<tr>
<th>Supervisor’s Comments on Incident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
## SUPERVISOR’S INJURY SURVEY

<table>
<thead>
<tr>
<th>Name of injured/ill employee (include Employee No.)</th>
</tr>
</thead>
</table>

### Description
What was the employee doing?

Describe how this specific injury/illness occurred:

### Severity

<table>
<thead>
<tr>
<th>Did the occurrence result in a fatality?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the occurrence a result of an instantaneous event?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Was the employee transferred to another job?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Was there a loss of consciousness?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Describe the location/extent of injury or illness:

<table>
<thead>
<tr>
<th>Was the employee physically or mentally unable to perform all or any part of their normal assignment during any part of the workday or shift?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

### Treatment

<table>
<thead>
<tr>
<th>Was first aid provided?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Describe first aid provided:

Who provided the first aid? (employee?)

Were professional medial services required?

Who provided professional medical service?

Comments:
## WITNESS SURVEY

(Add pages as necessary to document the incident.)

<table>
<thead>
<tr>
<th>Administrative Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Witness Name:</td>
</tr>
<tr>
<td>Employee No.:</td>
</tr>
<tr>
<td>Department:</td>
</tr>
<tr>
<td>Date of Incident:</td>
</tr>
<tr>
<td>Incident location and conditions:</td>
</tr>
</tbody>
</table>

Did the incident occur on the employer's premises? Yes | No

Location of the incident:
Address of location of incident:

Identify weather/environmental conditions:

<table>
<thead>
<tr>
<th>Description of the Incident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Events and conditions leading to the incident:</td>
</tr>
<tr>
<td>How did the incident occur/what were the results?</td>
</tr>
<tr>
<td>What were you doing when the incident occurred?</td>
</tr>
<tr>
<td>What was the injured/ill worker doing?</td>
</tr>
<tr>
<td>Describe how this specific illness/injury occurred:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who Was Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>List injured/ill employees:</td>
</tr>
<tr>
<td>List other employees involved in the incident:</td>
</tr>
<tr>
<td>List other injured/ill persons (non-employees):</td>
</tr>
</tbody>
</table>
### WITNESS SURVEY (continued)

(Add pages as necessary to document the incident.)

<table>
<thead>
<tr>
<th>List other witnesses to the incident:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>List equipment and/or property involved:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>List damaged equipment/property and description:</th>
</tr>
</thead>
</table>

### Severity

<table>
<thead>
<tr>
<th>Did the occurrence result in a fatality (death)?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the occurrence a result of an instantaneous event?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Was the employee transferred to another job?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Was there a loss of consciousness?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Describe the location/extent of injury or illness:

<table>
<thead>
<tr>
<th>Was the employee physically or mentally unable to perform all or any part of their normal assignment during any part of the workday or shift?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

### Treatment

<table>
<thead>
<tr>
<th>Was first aid provided?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Describe first aid provided:

Who provided the first aid? (employee?)

<table>
<thead>
<tr>
<th>Were professional medial services required?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Who provided professional medical service?

### Prevention

What was the cause of the incident?

What corrective action was taken?

Witness Signature:  
Date:  

---

*Sample Safety Program Elements for Structural Steel Fabrications*
Chapter Ten

OCCUPATIONAL INJURY MANAGEMENT

PURPOSE

The company strives to eliminate occupational injury and health incidents. In spite of our efforts injuries and health incidents occur. The Occupational Injury Management element of the company safety program is to ensure quality care for our employees and minimize the effects of the injury.

RESPONSIBILITY

The company will arrange for appropriate medical care to be available in response to the injury.

The <Plant Manager> will assure reasonable action has been taken to minimize the impact of the injury, to eliminate any immediate danger to the injured employee or others and to see that the employee receives appropriate medical attention. The <Plant Manager> or his designee will communicate with the health care professional as required and will assure a record of the injury is maintained.

The employee’s supervisor or if that supervisor is not readily available any supervisor will take necessary action to assure immediate dangers are under control and that the injured employee is given appropriate medical attention and to report the injury to the <Plant Manager>.

Human Resources will notify the insurance company.

The injured employee or any employee witnessing an injury may take whatever action is necessary to prevent further injury or danger and will report the injury to the nearest supervisor.

INJURY MANAGEMENT

<Company> has arranged for medical care from <Clinic>. The staff of <Clinic> have been advised of the kind of work we do and have been selected by us as Occupational Health Professionals who are capable of the quality of care our employees deserve.

<Company> will send the injured employee to appropriate health care professional if the injury requires more than first aid. If possible, the employee’s supervisor or other designated company personnel will take the injured employee to the health care professional.

The supervisor attending the injured employee will report the injury to the <Plant Manager>. The <Plant Manager> will initiate a report of the injury and an incident investigation. The supervisor should identify and interview/obtain statements from all witnesses to the injury.

The <Plant Manager> will provide information to the health care provider. That information will include:

- A description of the employee’s current job, (job function evaluation) with details on postures (standing, sitting, walking) and physical demands (lifting—weight and frequency, hours worked, tool usage, etc.).
- A copy of the injury report describing how the injury occurred if available.
- An Attending Physician’s Report Form.
- A statement of our company’s position on returning injured employees to work.
If the injury will restrict the employee’s activities the <Plant Manager> will contact the health care provider to determine reasonable accommodation necessary to minimize the impact of the injury on the employee and the company. Such accommodation may include provision of aids to work or alternate assignments.

If the employee is directed by the health care professional not to return to work immediately, the supervisor will communicate with the employee and provide assistance in pursuing appropriate medical and insurance services.

The <Plant Manager> will obtain a report from the health care professional describing work restrictions. If possible, the <Plant Manager> will obtain concurrence of the health care provider that accommodations made for the employee’s return to work are appropriate.

Records of the injury will be maintained. These records will include:

- A copy of the injury report.
- Documentation of initial treatment.
- Copies of medical bills.
- A log of all phone conversations with the employee, physician, and claim representative.
- Progress reports from the physician.

**COMPANY POSITION ON RETURNING TO WORK**

<Company> policy is to have employees return to work as soon as they can without causing further injury or extending the impact of the initiating injury. The company has a variety of options for accommodating injury related work restrictions including alternate assignments. The company will communicate with the employee and the health care provider to implement reasonable accommodation to return an employee to work and minimize the impact of injury.
## JOB FUNCTION EVALUATION

<table>
<thead>
<tr>
<th>Date:</th>
<th>Company:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Name:</td>
<td>Department:</td>
</tr>
<tr>
<td>Job Title:</td>
<td></td>
</tr>
</tbody>
</table>

I. **Employee’s Job Function**: (provide a basic description of the job duties)

<table>
<thead>
<tr>
<th>Check One:</th>
<th>Current Job</th>
<th>Alternative Job</th>
</tr>
</thead>
</table>

II. **Work Location**

<table>
<thead>
<tr>
<th>Indoors [ ]</th>
<th>Heated</th>
<th>Yes [ ]</th>
<th>No [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside [ ]</td>
<td>Temperature Extremes</td>
<td>Yes [ ]</td>
<td>No [ ]</td>
</tr>
<tr>
<td>Below Ground [ ]</td>
<td>Personal Protective Equipment Required</td>
<td>Yes [ ]</td>
<td>No [ ]</td>
</tr>
</tbody>
</table>

Elevated Areas [ ]

Describe:

III. **Work Postures** (indicate frequency)

<table>
<thead>
<tr>
<th>Standing [ ]</th>
<th>Continuous [ ]</th>
<th>Frequent [ ]</th>
<th>Infrequent [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting [ ]</td>
<td>Continuous [ ]</td>
<td>Frequent [ ]</td>
<td>Infrequent [ ]</td>
</tr>
<tr>
<td>Waling [ ]</td>
<td>Continuous [ ]</td>
<td>Frequent [ ]</td>
<td>Infrequent [ ]</td>
</tr>
<tr>
<td>Climbing [ ]</td>
<td>Continuous [ ]</td>
<td>Frequent [ ]</td>
<td>Infrequent [ ]</td>
</tr>
<tr>
<td>Kneeling [ ]</td>
<td>Continuous [ ]</td>
<td>Frequent [ ]</td>
<td>Infrequent [ ]</td>
</tr>
</tbody>
</table>

6-8 Hrs./Day [ ] 2-6 Hrs./Day [ ] 0-2 Hrs./Day [ ]

IV. **Physical Demands**

<table>
<thead>
<tr>
<th>Lifting</th>
<th>Describe Materials:</th>
<th>Weight of Materials:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How Frequently Lifted:</td>
<td>Position of Lift:</td>
</tr>
</tbody>
</table>
### JOB FUNCTION EVALUATION (continued)

<table>
<thead>
<tr>
<th></th>
<th>Describe Materials and Weight:</th>
<th>Distance Carried:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carrying</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tool Usage</strong></td>
<td>Describe or List Tools:</td>
<td>Frequency of Usage:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forceful Grip Required?</td>
<td>Yes [ ]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No [ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Work Hours</strong></th>
<th>Number and length of breaks or rest periods:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Misc.</strong></th>
<th>Indicate any other special or unusual job demands:</th>
</tr>
</thead>
</table>
## ATTENDING PHYSICIAN'S REPORT

**EMPLOYER** ____________________________  **CLAIM #** ____________________________

**PATIENT’S NAME** ____________________________ ____________________________

Dear Doctor:

Please provide the following information related to this injury/illness. This will assist us in returning our employee to work. Our company has an extensive and comprehensive Return to Work program for the injured/ill employee.

1. ☐ Employee may return to normal work duties at once.

2. ☐ Employee may return with the following restrictions:

   - **Hours/Day**
     - ☐ No restrictions
     - ☐ 8 hours
     - ☐ 6 hours
     - ☐ 4 hours
     - ☐ Other ______

   - **Days/Week**
     - ☐ No restrictions
     - ☐ 5 days
     - ☐ 4 days
     - ☐ 3 days
     - ☐ Other ______

   - **Lifting:**
     - ☐ No restrictions
     - ☐ 40 lbs.
     - ☐ 30 lbs.
     - ☐ 20 lbs.
     - ☐ 10 lbs.
     - ☐ Other ______

   - **Movement**
     - ☐ No restrictions
     - ☐ Limited stooping
     - ☐ Limited bending
     - ☐ Limited overhead reaching
     - ☐ Other ______

   Other (Please Specify)

Length of restrictions: resume regular duties after ______ days, or employee will be re-evaluated on _____________ (date).

3. ☐ The employee is totally incapacitated at this time. Employee will be re-evaluated on _____________ (date).

4. ☐ Notice to physician and employee: This report must be returned to employee's employer and the insurance claims department within 24 hours of this office visit.

   I saw the patient on: ________________ (date) and have made the following diagnosis:

   **DX:** ________________________________________________________________

5. Comments: ________________________________________________________________

Physician’s signature: ____________________________  Date: ________________

---

*Sample Safety Program Elements for Structural Steel Fabrications*
<table>
<thead>
<tr>
<th><strong>INJURY MANAGEMENT CHECKLIST</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employee</strong></td>
</tr>
<tr>
<td><strong>Health Care Professional</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>OSHA</strong></td>
</tr>
<tr>
<td><strong>Insurer</strong></td>
</tr>
<tr>
<td><strong>Investigation</strong></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Records</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Employee Contact</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Chapter Eleven
SAFETY RECOGNITION
AND INCENTIVE PROGRAM

PURPOSE

The purpose of the <Company> safety incentive program is to motivate and recognize those employees who perform their job in a safe and efficient manner. This program is driven by leading indicators, which, when performed diligently will eliminate or reduce the opportunity/risk for injuries, spills, fires and property damage

Incentive program

The facility will be divided into departments. Each of these departments will perform as four teams within their departments. Day shift employees of each department will be assigned to one of the four shift teams as determined by the safety committee.

Each department will have choices to make as to which of the 14 up-stream safety factors they wish to perform. Out of the 11 choices they are required to perform, the first six of these functions (A-F) leaving them to choose four from the other eight. The 11 factors are described below:

A) Job safety analysis (JSA): Each team in the department is required to perform one new JSA a month or revise at least two old JSAs per month. The <Safety Officer> for the department must sign off and retain these JSAs. Track any corrective actions identified on the JSA are to closure on the action list.

B) Behavior observations: Each employee in the department must perform at least two observations a month.

C) Near miss reporting: Each department must report at least 15 incidents per quarter, other than first aids and OSHA recordable.

D) Safety/Environmental regulatory training: Each employee in the department must have successfully completed all of the required safety/environmental training within the quarter. This includes all regulatory training, and training required by management of change compilations.

E) Safety equipment inspections: Each department must successfully inspect all required safety equipment: fire extinguishers-monthly, eyewash/showers-monthly, ladders-monthly, and harnesses-monthly, exit lights-monthly. The EHS department will verify this information during its audits.

F) Active safety committee representation: Each department will have at least one active member of the safety committee. This designated member must attend at least 90 percent of all site safety committee meetings, including emergency meetings called by the <Safety Officer>.

A - F are required

G) Permit auditing: Each team within the department will perform at least one permit audit a month. The supervisor is responsible for performing this audit with at least one employee from the same area. He or she is to distribute a copy of the audit findings to the <Safety Officer> for review. The supervisor must note he or she conducted the permit audit for verification purposes. The supervisor must correct any deficiencies found immediately and document the correction on the audit. (no names)
H) Contractor field audits: Each team in the department must perform at least one contractor field audit every month. They must document these audits on the contractor work permit. The <Safety Officer> will verify audits by review of contractor work permits.

I) Ergonomics: Each department must have an active ergonomic team, which performs at least one ergonomic study on a specific job task monthly. The <Safety Officer> and management must review and approve this study. Track corrective actions to closure on the Corrective Action List.

J) Shift safety meetings: Departments must perform a safety meeting at the start of every shift. The department must assign any issues that arose to a responsible party with a completion date and tracked to closure. The supervisor is responsible for this meeting, documentation of the meeting.

K) Internal housekeeping: Each team must perform weekly housekeeping in their respected areas. The department is responsible for designing and implementing these housekeeping work sessions.

Rules

1.) To successfully participate in this program each Department must, by default, participate in A, B, C, D, E, and F. Each Department must then choose at least four (4) other programs to participate in.

2.) If ALL specified requirements are met within their specified time frame, each employee in that department will receive 25 SAFETY POINTS each quarter the objectives are met by their safety team; each employee in that Department will receive an additional 25 SAFETY POINTS each quarter the objectives are met by ALL four teams in that Department; each employee in the facility will receive an additional 25 SAFETY POINTS each quarter the objectives are met by ALL Departments. In total, each employee can receive up to 75 SAFETY POINTS per quarter.

3.) The SAFETY POINTS will be good for all types of items, including travel packages, clothing, tools, and toys for children, hobby type items, etc. A catalog of goods available under the program will be available from the <Safety Officer>.

4.) SAFETY POINTS can be saved for up to two years and sent all at once. It is up to the recipient to determine their spending. They will be distributed to those that qualify during the months of April, July, October, and January.
Chapter Twelve
WRITTEN SAFETY PROGRAM ELEMENTS
(STATUTORY PROGRAMS)

CONTROL OF HAZARDOUS ENERGY: LOCKOUT /TAGOUT

PURPOSE

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment, which may expose employees to hazardous energy. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury. An "Energy Control Inspection Form" must be completed for each type of equipment addressed by the procedures of this program. "Energy Control Inspection Forms," which follow, will be reviewed annually or as a problem is observed in the procedure.

MANAGEMENT RESPONSIBILITIES

• Each department supervisor shall train new employees and periodically instruct all of their employees regarding provisions and requirements of this Lockout/Tagout Program Procedure.
• Each department supervisor shall effectively enforce compliance with this Lockout/Tagout Procedure including the use of creative disciplinary action where deemed necessary.
• Each department supervisor shall assure that the locks and devices required for compliance with the Lockout/Tagout Procedure are provided to their employees.
• Prior to setting up, adjusting, repairing, servicing, installing or performing maintenance work on equipment, machinery, or processes the department supervisor shall determine and instruct employees of the steps to be taken to assure they are not exposed to injury due to unintended machine motion or release of energy.

EMPLOYEE RESPONSIBILITIES

• All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this procedure. All employees, upon observing a machine or piece of equipment, which is locked out to perform servicing, or maintenance, shall not attempt to start, energize, or use that machine or equipment.
• Employees shall consult with their department supervisor or other appropriate knowledgeable management personnel whenever there are any questions regarding their protection.
• Employees shall obtain and care for the locks and other devices required to comply with the Lockout/Tagout Procedure.

GENERAL

• The power source of any equipment, machine or process which is to be set-up, adjusted, repaired, serviced, installed, or to have maintenance work performed on it from which unintended motion or release of energy would cause personal injury, shall be locked out by each employee doing the work.
• Safety locks are for the personal protection of the employee and are only to be used for locking out equipment.

Sample Safety Program Elements for Structural Steel Fabrications
• Safety locks, adapters and “Danger Tags” can be obtained from your department department supervisor.

• Only one key is to be available for each lock use for lockout purposes. The key shall be retained by the employee to whom it was issued for lockout purposes only.

• If more than one person will be working on equipment to be locked out, each employee shall use their own lock to perform a group lockout on the equipment.

• Employees shall request assistance from their department supervisor if they do not know where or how to lockout equipment.

• Any questions concerning the lockout procedure shall be directed to the employee’s department supervisor.

SEQUENCE OF LOCKOUT

• De-energization

1. Notify all affected employees that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.

2. The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, understand the hazards of the energy, and know the methods to control the energy.

3. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.).

4. Deactivate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).

5. Each person authorized to work on the equipment is to lock out the energy isolating device(s) with assigned individual lock(s).

6. Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or retained by methods such as grounding, repositioning, blocking, bleeding down, etc.

7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed; then verify the isolation of the equipment by operating the push button or other normal operating control(s), or by testing to make certain equipment will not operate.

Caution: Return operating control(s) to neutral or “off” position after verifying the isolation of the equipment.

8. The machine or equipment is now locked out.

• Re-energization

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

1. Check the machine or equipment and the immediate area around the machine to ensure that tools, used parts, test pieces and other interfering items have been removed and that the machine or equipment components are operationally intact.

2. Check the work area to ensure that all employees are aware and safely positioned or removed from the area.

3. Verify that the controls are in neutral.

4. Remove the lockout devices and re-energize the machine or equipment.
Note: The removal of some forms of blocking may require re-energization of the machine before safe removal.

5. Notify affected employees that the servicing or maintenance is completed and that the machine or equipment is ready for use.

- Special Considerations:

1. No changes, adjustments, or repairs that require shutting down the equipment will be made without permission of the operator, or operating supervisor in charge. The equipment involved must have been turned over to repair crews before the work begins.

2. If more than one employee works on the same equipment, each person must attach his/her lock and tag unless group control procedures are used.

3. When an employee is reassigned from a job, which is incomplete, and the equipment of necessity remain locked out, the employee involved will notify his supervisor before removing his lock/tag. The supervisor will then lockout/tagout the equipment or arrange for such lockout and tagging prior to the first employee removing his lock and tag.

4. No attempt shall be made by anyone to operate a control device to which a lock or tag is attached.

5. When a job is to be extended from one shift to another, the relieving employee or the supervisor shall attach his lock/tag to the lockout device before the employee going off shift removes his lock/tag. If the supervisor places his lock/tag on the device instead of the oncoming employee, the oncoming employee shall place his lock/tag on the device before starting work.

6. In the event an employee leaves a lock/tag on equipment and cannot be found, the supervisor may have the lock/tag removed only after following the procedures outlined.

7. When requested by operating personnel, maintenance personnel shall perform electrical disconnects. The employees performing the work must go with the person making the disconnect and attach his lockout/tagout device to the control device.

8. When locking out electrical disconnects, push buttons shall be tried to make sure the correct switch has been opened.

9. In no case shall anyone be assigned to remove another employee’s lockout/tagout device except the supervisor as authorized in item 6, above.

10. Locks and danger tags issued for use in making lockouts will not be used for any purpose other than as outlined.

11. A supervisor shall lockout/tagout equipment when the equipment is to be out of service for an extended period of time, (over eight hours).

12. Outside contractors shall be informed of our lockout/tagout procedures and required to follow it.

ABSENT EMPLOYEE PROCEDURES

In the event that the employee who applied the lockout or tagout device is not at the facility when it needs to be removed, the department supervisor should take certain actions to ensure full employee protection. The department supervisor should first verify that the employee is not at the facility. He or she should then make reasonable efforts to contact him and notify him that his device is being removed. Before the employee resumes work at the facility, the department supervisor should make him or her aware that his lock or tag has been removed.

EMERGENCY SAFETY LOCK REMOVAL

The Maintenance Person will be authorized to remove an employee’s lock under the following conditions:

Sample Safety Program Elements for Structural Steel Fabrications
• Receipt of a written request signed by the appropriate department supervisor, which shall state the reason the employee is not able to remove the lock.
• The department supervisor is responsible for making certain that all of the requirements for re-energization are followed.

GROUP LOCKOUT/TAGOUT

When a group lockout or tagout procedure is used, each authorized employee should be responsible for specific individuals working under the protection of the group lockout device. The authorized employee should be certain of the exposure status of each individual employee operating under the protection of his device.

When more than one crew is involved, the control of the overall lockout procedure should be delegated to one authorized employee. He or she should coordinate all affected work forces to ensure the continuity of protection. Each authorized employee shall attach a personal lockout/tagout device to the group lockout/tagout hasp before any work is started. The authorized employee should only remove the lock when the work is completed and his crew is not at risk.
SAMPLE ENERGY CONTROL (LOCKOUT/TAGOUT) PROCEDURE

Equipment: Ironworker

Department: Cut and Prep

Procedures Date: 1/8/05

Procedure Author: TJS

Sample Safety Program Elements for Structural Steel Fabrications
| Hazardous Energy | Electrical: 240 V  
|                 | Pneumatic: Internal and inactive when the electrical is disconnected. |
| Equipment Required | Tagout Tags: (2)  
|                   | Lockout Lock: (1) |
| Authorized Personnel | Maintenance |
| Procedure | **1) Shut Down Procedures:**  
|           | a. Notify all affected employees that a lockout or tagout system is going to be utilized and the reason for the lockout or the tagout. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the associated hazards.  
|           | b. Electrical:  
|           | Press the "STOP" button to completely de-energize the machine. |
|           | **2) Isolation Procedures:**  
|           | a. Electrical: Located between the two machines.  
|           | Turn the main service isolator to "OFF" to isolate the electrical POWER. |
|           | **3) Lockout Procedures:**  
|           | a. Electrical:  
|           | Lockout the main isolator using an interlocking hasp and padlock. |
|           | **4) Verification Procedures:**  
|           | a. Electrical:  
|           | "Try" the machine start controls (e.g., by switching the "ON/OFF" switch to the "ON" or "START" position and observing that the machine does not operate) after lockout/tagout to make sure the correct isolation device has been secured and that the device is in the open or safe position. Switch the "ON/OFF" or "START" switch to the "OFF" position. "IF" electrically qualified and authorized to do so, verify blade openings visually on electrical conductors or energized parts. Test for no voltage on phase-to-phase and phase-to-ground before beginning work. |
|           | **5) Returning to Service:**  
|           | a. Check the machine and the immediate area around the machine to ensure that nonessential items have been removed and that the machine components are operationally intact.  
|           | b. Check the work area to ensure that all employees have been safely positioned or removed from the work area.  
|           | c. Electrical:  
|           | Remove the padlock and interlocking hasp from the main isolator and turn the isolator to the "ON" position.  
|           | d. Notify affected employees that the maintenance is completed and the machine is ready for production. |
### SAMPLE ENERGY CONTROL (LOCKOUT/TAGOUT) PROCEDURE

**Equipment:** Air-Powered Hand Tools

**Department:** Cut and Prep & Fit and Fasten

**Procedures Date:** 9/10/03  
**Last Rev:** 1/8/05  
**Procedure Author:** LK  
**Rev. By:** TJS

<table>
<thead>
<tr>
<th>Hazardous Energy</th>
<th>Pneumatic: 120 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment Required</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Authorized Personnel</strong></td>
<td>Repairs by Maintenance only. Changing bits, blades or grinding wheels permitted by authorized operators.</td>
</tr>
<tr>
<td><strong>Procedure</strong></td>
<td><strong>Lockout Procedure:</strong></td>
</tr>
<tr>
<td></td>
<td>1. Disconnect the Air-Powered Hand Tool from its compressed air source.</td>
</tr>
<tr>
<td></td>
<td>2. Test the Air-Powered Hand Tool by turning on the power switch. If there is no response, the Air-Powered Hand Tool is safe to perform repair or perform maintenance. If the tool requires maintenance, a &quot;Do Not Use&quot; tag shall be applied.</td>
</tr>
<tr>
<td></td>
<td><strong>Re-Energization:</strong></td>
</tr>
<tr>
<td></td>
<td>1. Check and be sure that the power switch on the Air-Powered Hand Tool is in the off position.</td>
</tr>
<tr>
<td></td>
<td>2. Attach the Air-Powered Hand Tool to its compressed air source.</td>
</tr>
<tr>
<td></td>
<td>3. Turn on the Air-Powered Hand Tool with the power switch.</td>
</tr>
</tbody>
</table>
SAMPLE ENERGY CONTROL (LOCKOUT/TAGOUT) PROCEDURE

Equipment: Electrical Hand Tools

Department: Cut and Prep & Fit and Fasten

Procedures Date: 9/10/03  Last Rev: 1/8/05

Procedure Author: LK  Rev. By: TJS

<table>
<thead>
<tr>
<th>Hazardous Energy</th>
<th>Electrical: 110 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Required</td>
<td></td>
</tr>
<tr>
<td>Authorized Personnel</td>
<td>Repairs by Maintenance only. Changing bits, blades or grinding wheels permitted by authorized operators.</td>
</tr>
</tbody>
</table>

**Procedure**

**Lockout Procedure:**
1. Unplug the tool.
2. Test the Tool by turning on the power switch. If there is no response, the Hand Tool is safe to perform repair or perform maintenance. The tool shall be tagged "Do Not Use."

**Re-Energization:**
1. Check and be sure that the power switch on the Hand Tool is in the off position.
2. Plug the tool into an appropriate socket.
3. Turn on the Tool with the power switch.
SAMPLE ENERGY CONTROL (LOCKOUT/TAGOUT) PROCEDURE

<table>
<thead>
<tr>
<th>Equipment:</th>
<th>Compressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department:</td>
<td>Fit and Fasten</td>
</tr>
<tr>
<td>Procedures Date:</td>
<td>9/10/03</td>
</tr>
<tr>
<td>Procedure Author:</td>
<td>LK</td>
</tr>
</tbody>
</table>

| Hazardous Energy | Electrical: 110 V  
Pneumatic: 120 psi |
|-----------------|------------------|
| Equipment Required | Lockout Lock: (2)  
Lockout Tag: (2) |
| Authorized Personnel | Repairs by Maintenance only. |

**Lockout Procedure:**
1. Shut off power switch on the Compressor.
2. Shut off power at the disconnect box.
3. Apply lock to the disconnect box switch (with an identification tag).
4. Test the Compressor by turning on the power switch.
5. Shut off and Lock out main compressed air valve.
7. If there is no response, the Compressor is safe to perform repair or perform maintenance.

**Re-Energization:**
1. Check and be sure that the power switch on the Compressor is in the off position.
2. Remove lock from the disconnect box switch.
3. Turn on power at the disconnect box.
4. Remove lock from main compressed air valve and turn on.
5. Turn on the Compressor with the power switch.
SAMPLE ENERGY CONTROL (LOCKOUT/TAGOUT) PROCEDURE

Equipment: Crane

Department: Fit and Fasten

Procedures Date: 9/10/03  Last Rev: 1/8/05

Procedure Author: LK  Rev. By: TJS

<table>
<thead>
<tr>
<th>Hazardous Energy</th>
<th>Electrical: 220 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Required</td>
<td>Lockout Lock: (1)</td>
</tr>
<tr>
<td></td>
<td>Lockout Tag: (1)</td>
</tr>
<tr>
<td>Authorized Personnel</td>
<td>Repairs by Maintenance only.</td>
</tr>
</tbody>
</table>

Procedure

Lockout Procedure:
1. Shut off power switch on the Crane.
2. Shut off power at the disconnect box.
3. Apply lock to the disconnect box switch (with an identification tag). Tag the crane controls.
4. Test the Crane by turning on the power switch. If there is no response, the Crane is safe to perform repair or perform maintenance.

Re-Energization:
1. Check and be sure that the power switch on the Crane is in the off position.
2. Remove lock from the disconnect box switch.
3. Turn on power at the disconnect box.
4. Turn on the Crane with the power switch.
SAMPLE ENERGY CONTROL (LOCKOUT/TAGOUT) PROCEDURE

Equipment: Welding Machine
Department: Fit and Fasten

Procedures Date: 9/10/03 Last Rev: 1/8/05
Procedure Author: LK Rev. By: TJS

<table>
<thead>
<tr>
<th>Hazardous Energy</th>
<th>Electrical: 220 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Required</td>
<td>Lockout Lock: (1)</td>
</tr>
<tr>
<td></td>
<td>Lockout Tag: (1)</td>
</tr>
<tr>
<td>Authorized Personnel</td>
<td>Repairs by Maintenance only.</td>
</tr>
<tr>
<td>Procedure</td>
<td>Lockout Procedure:</td>
</tr>
<tr>
<td></td>
<td>1. Shut off power switch on the Welding Machine.</td>
</tr>
<tr>
<td></td>
<td>2. Shut off power at the disconnect box.</td>
</tr>
<tr>
<td></td>
<td>3. Apply lock to the disconnect box switch (with an identification tag)</td>
</tr>
<tr>
<td></td>
<td>4. Test the Welding Machine by turning on the power switch. If there is no response, the Welding Machine is safe to perform repair or perform maintenance.</td>
</tr>
<tr>
<td>Re-Energization:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Check and be sure that the power switch on the Welding Machine is in the off position.</td>
</tr>
<tr>
<td></td>
<td>2. Remove lock from the disconnect box switch.</td>
</tr>
<tr>
<td></td>
<td>3. Turn on power at the disconnect box.</td>
</tr>
<tr>
<td></td>
<td>4. Turn on the Welding Machine with the power switch.</td>
</tr>
<tr>
<td>Note: See the “Energy Control Inspection Form” for “Welding Leads” for the repair of Welding Leads.</td>
<td></td>
</tr>
</tbody>
</table>
SAMPLE ENERGY CONTROL (LOCKOUT/TAGOUT) PROCEDURE

Equipment: Welding Leads

Department: Fit and Fasten

Procedures Date: 9/10/03 Last Rev: 1/8/05

Procedure Author: LK Rev. By: TJS

<table>
<thead>
<tr>
<th>Hazardous Energy</th>
<th>Electrical: 250 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Required</td>
<td>Lockout Lock: (1)</td>
</tr>
<tr>
<td></td>
<td>Lockout Tag: (1)</td>
</tr>
<tr>
<td>Authorized Personnel</td>
<td>Repairs by Maintenance only.</td>
</tr>
<tr>
<td>Procedure</td>
<td>Before repairing Welding Leads, the following procedure shall be followed:</td>
</tr>
<tr>
<td></td>
<td>1. Follow the weld machine lock procedure or disconnect the welding lead.</td>
</tr>
<tr>
<td></td>
<td>2. Place a welding rod or wire in the holder.</td>
</tr>
<tr>
<td></td>
<td>3. Touch rod or wire and operate the trigger to the nearest beam or bunk.</td>
</tr>
<tr>
<td></td>
<td>4. If a spark is thrown, find ground for the machine the lead is attached to and place it on the floor of the shop so that it is in your view at all times while working on the lead.</td>
</tr>
<tr>
<td></td>
<td>5. Touch rod to the beam or bunk to be sure no spark is thrown.</td>
</tr>
<tr>
<td></td>
<td>6. If no spark is thrown clamp the Welding Lead to the beam or bunk and perform repairs. The ground MUST be in your possession.</td>
</tr>
</tbody>
</table>
ELECTRICAL SAFETY

1.0 Introduction

1.1 Electricity is a serious workplace hazard, capable of causing both employee injury and property damage. It is the policy of <Company> to protect all employees from potential electrical hazards. This will be accomplished through compliance with the work practices described herein along with the effective application of engineering controls, administrative controls and the use of personal protective equipment (PPE). <Company> seeks to put forth an organized effort to reduce the potential for injury.

1.2 The <Company> Electrical Safety Program is founded on the principle of avoiding energized work unless it is absolutely necessary. Live parts will be de-energized before an employee works on or near them unless one of the following conditions apply:

1.2.1 De-energizing introduces additional or increased hazards. Examples of “additional or increased” hazards would include interruption of life support equipment, deactivation of emergency alarm systems or shutdown of hazardous location ventilation systems.

1.2.2 De-energizing is not possible due to equipment design or operational limitations. Examples of this situation would increase testing of electrical circuits that can only be performed with the circuit energized and work on circuits that form an integral part of a continuous process that would otherwise need to be completely shut down in order to permit work on one circuit or piece of equipment.

1.2.3 Live parts are operating at less than 50 volts to ground and there is no increased exposure to electrical burns or to explosion due to electrical arcs.

1.3 Live parts are to be de-energized in accordance with <Company> Lockout/Tagout policies. If live parts are not placed in an electrically safe condition, the work practices described in this program must be used to protect employees.

2.0 Responsibilities

2.1 Supervisors

2.1.1 Determine the applicability of this program to applied activities within their respective areas.
2.1.2 Coordinate the implementation of the electrical safety program within their areas.

2.1.3 Ensure employees comply with all provisions of this program.

2.1.4 Ensure employees receive training appropriate to their assigned electrical tasks and maintain documentation of such training.

2.1.5 Ensure employees are provided with and use appropriate PPE.

2.2 Electricians

2.2.1 Assist shop in implementing the provisions of this program.

2.2.2 Provide or assist in task specific training for electrical work qualifications.

2.3 Employees

2.3.1 Follow the work practices described in this program, including the use of appropriate protective equipment and tools.

2.3.2 Do not perform tasks unless the proper training has been provided.

2.3.3 Attend all training required relative to this program.

2.3.4 Report any concerns related to electrical safety to supervision.

3.0 Definitions

3.1 Arc Flash - a phenomenon where a flashover of electric current leaves its intended path and travels through the air from one conductor to another, or to the ground.

3.2 Arc Rating – the maximum incident energy resistance demonstrated by a material (or a layered system of materials) prior to “breaking open” or at the onset of a second-degree skin burn. This rating is assigned to electrical protective clothing and is normally expressed in calories per square centimeter (cal/cm²).

3.3 De-energized – free from any electrical connection to a source of potential difference and from electric charge.

3.4 Electrically safe working condition – a state in which the conductor or circuit part to be worked
on or near has been disconnected from energized parts, locked/tagged in accordance with OSU policy, tested to ensure the absence of voltage, and grounded if determined necessary.

3.5 **Energized** – electrically connected to or having a source of voltage.

3.6 **Exposed (as to live parts)** – capable of being inadvertently touched or approached from closer than a safe distance by a person.

3.7 **Flash Hazard** – a dangerous condition associated with the release of energy caused by an electric arc.

3.8 **Flash Hazard Analysis** – a study investigating a worker’s potential exposure to arc flash energy, conducted for the purpose of injury prevention, the determination of safe work practices, and the appropriate levels of personal protective equipment (PPE).

3.9 **Flash Protection Boundary** – an approach limit at a distance from exposed live parts within which a person could receive a second degree burn if an electrical arc were to occur.

3.10 **Flame-Resistant (FR)** – the property of a material whereby combustion is prevented, terminated, or inhibited following the application of a flaming or non-flaming source of ignition, with or without subsequent removal of the ignition source.

3.11 **Flash Suit** – a complete flame-resistant clothing and equipment system that covers the entire body, except for the hands and feet.

3.12 **Incident Energy** – the amount of energy impressed on a surface, a certain distance from the source, generated during an electrical arc event.

3.13 **Limited Approach Boundary** – an approach limit at a distance from an exposed live part within which a shock hazard exists.

3.14 **Prohibited Approach Boundary** – an approach limit at a distance from an exposed live part within which work is considered the same as making direct contact with the live part.

3.15 **Qualified person** – one who has skills and knowledge related to the construction and operation of the electrical equipment and installation and has received training on the hazards involved.

3.16 **Restricted Approach Boundary** – an approach limit at a distance from an exposed live part
within which there is an increased risk of shock, due to electrical arc over combined with inadvertent movement, for personnel working in close proximity to the live part.

4.0 Training

. 4.1 Employees who are exposed to an electrical hazard that is not reduced to a safe level by the installation (panel cover, outlet cover, etc.) must be trained.

. 4.2 Training must be provided before the employee is assigned duties that involve work near or on electrical systems.

. 4.3 The level of electrical safety training provided is dependent on whether the employee is classified as a “qualified” or “unqualified” person.

. 4.4 A “qualified person” shall be trained and knowledgeable in all of the following topics:

. 4.4.1 Construction and operation of equipment on which work is assigned.

. 4.4.2 Skills and techniques necessary to distinguish exposed energized parts from other parts of electrical equipment.

. 4.4.3 Skills and techniques necessary to determine the nominal voltage of exposed live parts or the absence of voltage.

. 4.4.3.1 An individual can obtain knowledge in the three topics listed above through a combination of methods including the individual’s education, past work experience, and on-the-job training.

. 4.4.4 The approach distances specified in this program and the corresponding voltages to which the qualified employee will be exposed.

. 4.4.5 The process necessary to determine the degree and extent of electrical hazards along with the PPE and job planning necessary to perform the task safely.

. 4.5 A person can be considered qualified with respect to certain equipment and methods but unqualified for others.

. 4.6 An “unqualified person” shall be trained in the inherent hazards of electricity and any related work practices that are necessary for their safety.
4.7 Supervisors shall maintain a record of all electrical training provided to their employees along with a listing of all employees classified as qualified persons.

5.0 Working On or Near Live Parts

5.1 Job Briefing

5.1.1 A job briefing is required before the start of each job involving energized electrical work. Each qualified person shall be briefed on the job. At a minimum the briefing must include the following: associated electrical hazards, work procedures, special precautions, isolation points and procedures, emergency response, PPE requirements and other work in the immediate area.

5.2 Approach Boundaries to Live Parts

5.2.1 Safe approach distances will be determined for all tasks in which approaching personnel are exposed to live parts.

5.2.2 Safe approach distances to fixed live parts are established and posted on equipment, disconnects, fuse boxes, etc.

5.2.3 Unqualified persons may only cross the Limited Approach Boundary when they are under the direct supervision of a qualified person.

5.2.4 Qualified persons may not cross or take any conductive objects closer than the Restricted Approach Boundary unless one of the following conditions applies:

5.2.4.1 The qualified person is insulated or guarded from the live parts and no uninsulated part of the qualified person’s body crosses the Prohibited Approach Boundary.

5.2.4.2 The live parts are insulated from the qualified person and from any other conductive object at a different potential.

5.2.5 Crossing the Prohibited Approach Boundary is considered the same as making contact with energized parts. Qualified persons may only cross this boundary when all of the following precautions have been taken:

5.2.5.1 The qualified person has specific training to work on energized parts.
. 5.2.5.2 The qualified person uses PPE appropriate for working on energized parts which is rated for the voltage and energy level involved.

5.3 Other Precautions for Personnel Activities

. 5.3.1 Employees shall not reach blindly into areas that might contain exposed live parts or above eye level where a panel may have an open knock out hole.

. 5.3.2 Employees shall not enter spaces containing live parts unless illumination is provided that allows the work to be performed safely.

. 5.3.3 Conductive articles of jewelry and clothing (such as watchbands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, metal headgear, or metal frame glasses) shall not be worn where they present an electrical contact hazard with exposed live parts.

. 5.3.4 Conductive materials, tools, and equipment that are in contact with any part of an employee’s body shall be handled in a manner that prevents accidental contact with live parts. Such materials and equipment include, but are not limited to, long conductive objects such as ducts, pipes, tubes, conductive hose and rope, metal-lined rules and scales, steel tapes, pulling lines, metal scaffold parts, structural members, and chains.

. 5.3.5 When an employee works in a confined or enclosed space (such as a manhole or vault) that contains exposed live parts, the employee shall use protective shields, barriers or insulating materials as necessary to avoid contact with these parts. Doors, hinged panels, and the like shall be secured to prevent them from swinging into employees.

6.0 Personal Protective Equipment (PPE)

6.1 General Requirements

. 6.1.1 Employees working in areas where electrical hazards are present shall be provided with, and shall use, protective equipment that is designed and constructed for the specific body part to be protected and for the work to be performed.

. 6.1.2 Department supervisors are responsible for providing electrical protective equipment required by this program at no cost to employees, such as FR apparel, eye protection, head protection, hand
protection, insulated footwear and face shields. Department supervisors are not responsible for providing non-FR under layers to employees.

- **6.1.3** All PPE shall be maintained in safe, reliable condition by the employee to whom it is issued.

- **6.1.4** Employee shall wear nonconductive head protection whenever there is a danger of head injury for electric shock or burns due to contact with live parts or from flying objects resulting from electrical explosion.

- **6.1.5** Employees shall wear PPE for the eyes whenever there is a danger of injury from electric arcs, flashes, or from flying objects resulting from electrical explosion.

- **6.1.6** Employees shall wear rubber insulating gloves where there is danger of hand and arm injury due to contact with live parts or possible exposure to arc flash burn. The following ratings can be found on voltage rated gloves:
  - **6.1.6.1** Class 00 = Protect against voltage up to 500 volts
  - **6.1.6.2** Class 0 = Protect against voltage up to 1,000 volts
  - **6.1.6.3** Class 1 = Protect against voltage up to 7,500 volts
  - **6.1.6.4** Class 2 = Protect against voltage up to 17,000 volts
  - **6.1.6.5** Class 3 = Protect against voltage up to 26,500 volts
  - **6.1.6.6** Class 4 = Protect against voltage up to 36,000 volts

- **6.1.7** Where insulated footwear is used as protection against step and touch potential, dielectric overshoes shall be required. Insulated footwear shall not be used as the primary protection.

- **6.1.8** Face shields without an arc rating will not be used for electrical work. Safety glasses or goggles must always be worn underneath face shields.

- **6.1.9** Additional illumination may be needed when using tinted face shields as protection during electrical work.

- **6.1.10** Employees shall wear hearing protection whenever there is a danger of noise overexposure resulting from an electrical explosion.

### 6.2 Flash Hazard Boundary

- **6.2.1** PPE shall be provided to and used by all employees working within the Flash Hazard Boundary.
6.2.2 The Flash Hazard Boundary is determined through a detailed arc flash hazard analysis.

6.2.3 The Arc Flash Hazard Boundary must be established and posted on the Arc Flash Warning Label.

6.2.4 The specific PPE to be worn within the Flash Protection Boundary can be determined by one of following three methods:

6.2.4.1 Required PPE is listed on the Arc Flash Hazard labels.

6.3 Flame-Resistant Apparel & Under Layers

6.3.1 FR apparel shall be visually inspected before each use. FR apparel that is damaged or contaminated shall not be used. Protective items that become contaminated with grease, oil, flammable liquids or combustible liquids shall not be used.

6.3.2 The garment manufacturer’s instructions for care and maintenance of FR apparel shall be followed.

6.3.3 When FR apparel is worn to protect an employee, it shall cover all ignitable clothing and allow for movement and visibility.

6.3.4 FR apparel must cover potentially exposed areas as completely as possible. FR shirt sleeves must be fastened and FR shirts/jackets must be closed at the neck.

6.3.5 Non-melting, flammable garments (i.e. cotton, wool, rayon, silk, or blends of these materials) may be used as under layers beneath FR apparel.

6.3.6 Fibers that can melt such as acetate, nylon, polyester, polypropylene, and spandex shall not be permitted in fabric under layers next to the skin.

6.3.7 When FR apparel is required, garments worn as outer layers over FR apparel (i.e. jackets or raingear) must also be made from FR material.

6.3.8 Flash suits must permit easy and rapid removal by the user.

7.0 Insulated Tools and Equipment

7.1 Only insulated tools and equipment shall be used within the Limited Approach Boundary of
exposed energized parts.

. 7.2 Insulated tools shall be rated for the voltages on which they are used.

. 7.3 Insulated tools shall be designed and constructed for the environment to which they are exposed and the manner in which they are used.

. 7.4 Fuse or fuse holder handling equipment, insulated for the circuit voltage, shall be used to remove or install a fuse if the fuse terminals are energized.

. 7.5 Ropes and hand lines used near exposed energized parts shall be nonconductive.

. 7.6 Portable ladders used for electrical work shall have nonconductive side rails.

8.0 Portable Power Tools and Extension Cords

. 8.1 Electrically powered portable hand tools shall be protected by a grounding conductor. The metal parts of portable and/or plug connected equipment shall be protected through three (3) wire cords and plugs.

. 8.2 GFCI protection is also required when cord sets, power tools, etc., are connected to permanent wiring.

. 8.3 GFCI is required with all extension cords. Cords shall be protected from sharp edges and corners. Cords shall not be spliced or taped.

. 8.4 Extension cords and cables passing through the work area shall be elevated or covered for protection, and arranged to eliminate any tripping hazards. All cords should be checked for proper polarity.

. 8.5 Extension cords must be three (3) wire, 14 gauge or heavier with a ground plug.

. 8.6 Damaged or worn cords must be taken out of service and tagged defective and repaired or removed.

9.0 Labeling

9.1 All switchboards, panel boards, industrial panels, motor control centers, and meter socket enclosures shall be labeled using a NFPA compliant Arc Flash Warning Label.
10.0 Alerting Techniques

10.1 Barricades shall be used in conjunction with safety signs to prevent or limit access to work areas containing live parts. Conductive barricades shall not be used where they might cause an electrical hazard. Barricades shall be placed no closer than the Limited Approach Boundary.

10.2 If signs and barricades do not provide sufficient protection, an attendant will be assigned to warn and protect pedestrians. The primary duty of the attendant shall be to keep unqualified persons out of the work area where an electrical hazard exists. The attendant shall remain in the area as long as there is a potential exposure to electrical hazards.

11.0 Housekeeping

11.1 Good housekeeping must be maintained at all times. Poor housekeeping in mechanical spaces presents many hazards including fire, trip and accidental contact; as well as code violations.

11.1.1 The OSHA Standard (29 CFR 1910.303 (g)) requires sufficient access and working space around all equipment serving 600 volts or less. For equipment serving between 120 and 250 volts, the regulations require a minimum of three feet of clearance. The width of the working space in front shall be 30 inches minimum or width of the equipment.

11.1.2 The National Electric Code (NFPA 70 110.26) requires a minimum of 36 inches of clear working space in the direction of any access to live parts.

12.0 Contract Employees

12.1 Contractors are responsible for following the <Company> Electrical Safety program, as well as the contractor’s in house policy.

12.2 <Company> shall inform contractors engaged in electrical work of any known hazards applicable to the work being performed. Contractors are required to follow all applicable OSHA regulations and NFPA 70E standards.

12.3 All proper PPE must be used and is to be provided by the contractor.

13.0 Arc Flash Safety

13.1 It is the goal of <Company> to control the arc flash hazard, which occurs during the maintenance
of electrical building components throughout all facilities. To reduce the potential for arc flash incidences, the following procedures should be followed:

13.1.1 De-energize all circuits before performing work on them (follow departmental policies when de-energizing circuits).

13.1.2 Ensure that all possible sources of supply are found and open disconnecting devices for each source.

13.1.3 Apply Lockout/Tagout devices in accordance with [Company] Lockout/Tagout Policies.

13.1.4 Test voltage on each conductor to verify that it is de-energized.

13.1.5 Apply grounding devices where stored energy or induced voltage could exist or where de-energized conductors could contact live parts.

13.2 If work is necessary on energized parts, the following procedures should be followed:

13.2.1 Establish boundaries keeping those not involved with the work ten (10) feet away.

13.2.2 Use insulated tools along with considering insulated floor mats.

13.2.3 Wear safety glasses/goggles and voltage rated gloves.

13.2.4 Wear hard-soled leather work shoes or dielectric overshoes.

13.2.5 Wear appropriate arc flash protection. 13.2.5.1 Voltages 50-120 = standard cotton shirt and cotton pants. 13.2.5.2 Voltages 120-600 = category 2 arc flash coat over standard uniform, low voltage gloves, hardhat with arc flash shield and earplugs.
HAZARD COMMUNICATIONS

Purpose

This Hazard Communication Program is developed and implemented to provide employees with information regarding hazards associated with exposure to chemicals in the company.

Hazardous Chemical Assessment

<Company> fabricates but does not produce hazardous substances and does not intend to evaluate any of the hazardous substances purchased from suppliers and/or manufacturers, but has chosen to rely upon the evaluation performed by the suppliers or by the manufacturers of the substances to satisfy the requirements for hazard determination.

Responsibility

Tasks in the Hazard Communication Program are assigned as follows:

<table>
<thead>
<tr>
<th>Task</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draft and Maintain Written Program</td>
<td>&lt;Safety Officer&gt;</td>
</tr>
<tr>
<td>Obtain SDSs for Chemicals</td>
<td>Purchasing Manager</td>
</tr>
<tr>
<td>Assure SDS received prior to use of the chemical</td>
<td>Receiving Supervisor</td>
</tr>
<tr>
<td>Review SDSs for ‘new’ hazard</td>
<td>&lt;Safety Officer&gt;</td>
</tr>
<tr>
<td>Assure Chemicals are labeled when received</td>
<td>Person receiving the chemical</td>
</tr>
<tr>
<td>Assure chemicals labeled when stored incl. Intermediate, short term storage</td>
<td>Area supervisors</td>
</tr>
<tr>
<td>Annual HazCom Program Audit</td>
<td>&lt;Safety Officer&gt;</td>
</tr>
<tr>
<td>Training</td>
<td>&lt;Safety Officer&gt; or designated representative</td>
</tr>
</tbody>
</table>

Container Labeling

No container or hazardous substance will be released for use unless the container is correctly labeled and the label is legible.

All chemicals in bags, drums, barrels, bottles, boxes, cans, cylinders, reaction vessels, storage tanks, or the like will be checked by the shipping and receiving department supervisor to ensure the manufacturer's label is intact, is legible, and has not been damaged in any manner during shipment. Any containers found to have damaged labels will be quarantined until a new label has been installed.

The label must contain pictograms, signal words, hazard statements, precautionary statements, product identification and the supplier/manufacturer identification including name and contact information.

All secondary containers shall be labeled with the product identity and hazard warning. Each supervisor is responsible to see that all containers are properly labeled in his work area.
Safety Data Sheets (SDS)

Purchasing will require an SDS for all products suspected of being or containing hazardous chemicals. Purchasing will provide the SDS to the <Safety Officer>. The receiving person will not release the material for use or forward the receiving ticket to accounting approving payment until an SDS is on file. Receiving will obtain the SDS or advise purchasing of the need for the SDS. A master SDS file will be maintained by the <Safety Officer> and stored in a readily available location. These Safety Data Sheets are available to all employees, at all times.

The <Safety Officer> or a designee will review all incoming SDSs for new and significant health/safety information.

<Company> will compile, annually review, and update as necessary a complete inventory of all substances present in that facility determined to be hazardous as defined in applicable federal and state standards. Consumer products, commonly available in retail stores, need not be included in this list.

Employee Information and Training

All employees will attend an orientation meeting for information and training on the following items prior to starting work with hazardous substances; (See Training Chapter III) when new substances are introduced into the workplace, the area supervisor will review the above items with you as they are related to the new materials.

Non-Routine Tasks

Infrequently, employees may be required to perform non-routine tasks that involve the use of hazardous substances. Before starting work on such projects, each involved employee will be given information by his or her supervisor about hazards to which they may be exposed during such an activity.

This information will include:

- The specific hazards.
- Protective/safety measures that must be utilized.
- The measures to be taken to lessen the hazards, including special ventilation, respirators, the presence of another employee, air sample readings, and emergency procedures.

Other Employers and Contractors

It is the responsibility of the <Safety Officer> to provide other employers and contractors with information about hazardous chemicals that their workers may be exposed to at <Company> and suggested precautions for workers. It is the responsibility of the <Safety Officer> to obtain information about hazardous chemicals used by other employers to which our employees may be exposed.

Other employers and contractors will be provided with SDSs for hazardous chemicals present in <Company>.

In addition to providing a copy of an SDS to other employers, other employers will be informed of necessary precautionary measures to protect workers exposed to operations performed by <Company>.

Also, other employers will be informed of the hazard labels used by <Company>. If alternative workplace
labeling systems are used, the other employers will be provided with information to understand the labels used for hazardous chemicals to which their workers may have exposure.
CONFINED SPACE

Purpose

Confined spaces can exist in equipment with the fabrication shop and may be created when fabricating items such as tanks and large weldments. The purpose of this program is to ensure the protection of all employees of <Company> from the hazards associated with confined space entry. This document contains requirements for practices and procedures to protect employees from those hazards of entry into and work within permit required confined spaces.

It shall be the policy of <Company> to reduce the need for confined space entry. It shall also be the policy of <Company> to eliminate whenever possible, all confined space hazards in order to reclassify permit-required confined spaces to non-permit required confined spaces. When confined space entry is necessary, all provisions of this document are to be followed.

Summary

<Company> has the responsibility to establish a written, comprehensive program which includes provisions for working in confined spaces. These provisions entail preventing unauthorized entries, identifying and evaluating hazards, establishing procedures for safe permit space entry, issuing and maintaining proper equipment, using outside attendants, establishing rescue and emergency procedures, identifying duties and job classifications of employees entering and/or working in confined spaces, establishing a system for issuing entry permits, developing post-entry procedures, and conducting post-illness/injury reviews.

The written plan will be reviewed every year in January for accuracy and completeness.

The written plan and its elements will be updated in the following situations:

1. When there is reason to believe that provisions of the program may not protect employees.
2. When new processes and/or technologies are introduced.
3. When job duties mentioned in the program are changed.
4. When locations mentioned in the program are changed.
5. When requirements for written confined space entry programs have changed in accordance with applicable standards, codes and regulations.
6. When any other elements are changed.

Definition of a Confined Space

A confined space means a space that: 1) is large enough and so configured that an employee can bodily enter and perform assigned work; 2) has limited or restricted means for entry or exit; and 3) is not designed for continuous human occupancy. Examples of confined spaces include but are not limited to storage tanks, process vessels, bins, silos, boilers, ventilation or exhaust ducts, sewers, pipe chassis, underground utility vaults, tunnels, and pipelines.

A permit-required confined space means a confined space that either 1) contains or has the potential to contain a hazardous atmosphere, 2) contains a material that has the potential for engulfing an entrant, 3) has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section, or 4) contains any other serious safety or health hazard.

Responsibilities

The <Safety Officer> shall be responsible for the development, documentation, and administration of <Company>’s Confined Space Entry Program. In fulfilling these responsibilities, the <Safety Officer> shall carry out the following tasks:
1) Develop the Written Confined Space Entry Program and revise the program as necessary.
2) Maintain records of employee training.
3) Provide guidance for the proper selection and use of appropriate air monitoring equipment, respiratory protection, and personal protective equipment to meet the requirements of this program.
4) Periodically audit work operations and documentation using canceled permits to evaluate the overall effectiveness of the Confined Space Entry Program and ensure that employees participating in entry operations are protected from permit space hazards.
5) Assist each department supervisor in identifying confined spaces encountered by his/her employees.
6) Provide guidance for the proper selection and use of appropriate safety and rescue equipment to meet the requirements of the Confined Space Entry Program.

DEPARTMENT SUPERVISORS

Department supervisors shall identify and report all job areas and locations that are or may be confined spaces. A list of confined spaces that are identified shall be submitted to the <Safety Officer>. In addition to this, department supervisors shall carry out the following tasks:

1) Classify confined spaces as "permit required," "Alternate Procedure" or "non-permit required."
2) Identify personnel who will enter confined spaces.
3) Identify the personnel under their supervision required to wear respirators.
4) Advise personnel on routine measurement of respiratory hazards in confined spaces.
5) Provide detailed instruction and training on confined space hazards and entry procedures to those who may enter confined spaces.
6) Provide instruction to personnel on the proper use of equipment required for confined space entry.
7) Maintain equipment that is used to enter confined spaces.
8) Conduct work site inspections to review unit compliance with confined space entry procedures.
9) Maintain records of equipment maintenance and employee training.
10) Inform employees who may enter the permit confined space by posting danger signs or by training.
11) Issuance and cancellation of entry permits.
12) Establishment of a lockout program for their department.
13) Identify and evaluate the hazards of permit spaces before employees enter them.
14) Conduct a pre-entry briefing to inform entrants of possible hazards that may be encountered.
15) Identify the people who will enter the confined spaces.
16) Take the necessary measures to prevent entrance into prohibited permit spaces.

EMPLOYEES WHO MAY ENTER CONFINED SPACES

Employees who may enter confined spaces shall comply with the confined space entry procedures contained herein and with those procedures stipulated by their supervisor. To comply, employees shall carry out the following tasks:

1) Store, clean, maintain and guard against damage, equipment used for confined space entry.
2) Report any deficiencies or malfunction of equipment to a supervisor.
3) Understand emergency procedures in case of an accident in a confined space.
4) Under no circumstance enter a confined space that is suspect of having a non-respirable atmosphere, even to rescue a fellow employee.

Permit-Required Confined Space Program
Departments will identify and classify every confined space as either a Permit-Required Confined Space or, when the confined space does not present a real potential hazard, a Non-Permit Confined Space. When Permit-Required Confined Spaces are identified, department heads and supervisors will also be responsible for the following:

a. Preventing Unauthorized Entry
b. Identifying Permit Space Hazards
c. Developing Safe Entry Practices
d. Maintaining and Using Equipment Properly
e. Testing for Acceptable Entry Conditions
f. Providing Permit Space Attendants
g. Providing Emergency Retrieval Systems

PROGRAM ELEMENTS FOR PERMIT-REQUIRED CONFINED SPACES

1) Preventing Unauthorized Entry
In order to prevent unauthorized entry into permit-required confined spaces, Departments must utilize at least two of the following mechanisms:

- Providing information to visitors
- Posting warning signs
- Erecting barriers
- Installing locks or covers at entry points

Each Department will document the implementation of these mechanisms and ensure that they remain in place.

2) Identifying Permit Space Hazards
Each Department will identify and evaluate the hazards of permit spaces before employees enter them. The following hazards shall be identified prior to entry into a confined space:

- Atmospheric hazards
- Asphyxiating atmospheres
- Flammable atmospheres
- Toxic atmospheres
- Burn hazards
- Heat stress hazards
- Mechanical hazards
- Engulfment hazards
- Physical hazards (falls, debris, slipping hazards)
- Electrocution
- Danger of unexpected movement of machinery
- Noise hazards

3) Developing Safe Entry Practices
Departments will implement procedures and practices necessary for safe permit space entry operations. These include, but are not limited to:

- Acceptable entry conditions
- Isolating the permit space
- Purging, inerting, flushing or ventilating the permit space as necessary to eliminate or control atmospheric hazards.

Sample Safety Program Elements for Structural Steel Fabrications
• Pre-entry Briefing. The lead worker will conduct a meeting of all employees who will enter the confined space. Employees will be informed of the hazards and safety conditions of the particular job.

4) **Controlling Hazards**

Hazards shall be controlled by the following mechanisms:

- Lockout of energy sources
- Cleaning and purging (See Appendix c, Ventilation of Confined Spaces)
- Personal protective equipment

**TRAINING AND DUTIES OF ENTRY PERSONNEL**

There are three specific members of a confined space entry team:

1) Authorized Entrants
2) Attendants
3) Entry Supervisor or “Lead Worker”

The department shall provide training so that all employees whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned.

Training shall be provided to each affected employee:

- Before the employee is first assigned duties.
- Before there is a change in assigned duties.
- Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained.
- Whenever the department has reason to believe either that there are deviations from the permit space entry procedures or that there are inadequacies in the employee’s knowledge or use of these procedures.

The training shall establish employee proficiency and shall establish new or revised procedures, as necessary, for compliance with applicable standards, codes and regulations.

The department shall certify that the training required by the previously mentioned paragraphs has been accomplished. The certification shall contain each employee’s name, the signatures or initials of the trainers, and the dates of training. The certification shall be available for inspection by employees and their authorized representatives.

Only trained attendants, authorized entrants, and personnel authorizing or in charge of entry shall work in and around a Permit Space.

**RESCUE AND EMERGENCY SERVICES – “911” IS NOT A PRIMARY EMERGENCY SERVICE FOR CONFINED SPACE RESCUE**

Where ever possible, the use of non-entry rescue systems or methods shall be used. Where non-entry rescue is not possible, departments will coordinate rescue and emergency services. These service providers will be made aware of the hazards they may confront when called on to perform rescues. They shall be responsible to equip, train, and conduct it appropriately. Designated departments will provide the service providers with access to all permit spaces from which rescue may be necessary so that they can develop appropriate rescue plans and practice rescue operations.
To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.

Non-Entry Rescue Retrieval Systems shall meet the following requirements:

1) Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, or above the entrant's head. Wristlets may be used in lieu of the chest or full body harness if the employer can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.

2) The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

3) If an injured entrant is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or written information shall be made available to the medical facility treating the exposed entrant.

WRITTEN PERMIT SYSTEM

A permit system shall be utilized for entry into Permit Spaces

Each canceled entry permit shall be retained for at least 1 year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation shall be noted on the pertinent permit so that appropriate revisions to the permit space program can be made.

COORDINATING ENTRY OPERATIONS

All outside contractors performing work in confined space entry permit areas shall be informed of any fire, explosion, health or other safety hazards of that confined space. This information shall be based on current or past history of the confined space and the nature of the contractor's work procedure in making such disclosure.

Each Department shall inform contractors of <Company>’s safety rules and emergency plans which may be applicable to the contractor's employees. Contractors and their employees must not be allowed to enter a confined space until the provisions of this program have been satisfied. When both company and contractor personnel are working in or near permit spaces, their entry operations must be coordinated to avoid endangering any personnel.

At the conclusion of the entry operations, the contractor must be debriefed regarding the permit space program that was followed and concerning any hazards confronted or created in permit spaces during entry operations.

It is the responsibility of each contractor who is retained to perform permit space entry operations to obtain any available information regarding permit space hazards and entry operations. They must also coordinate entry operations with <company> when both will be working in or near permit spaces. The company must be informed of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry operations.
CONCLUDING ENTRY

The lead worker will determine when the entry operations have been completed. The permit space will be closed and the permit canceled. The lead worker will write "Permit Canceled" with the date, time, and signature at the bottom of the Confined Space Permit. Entry into the permit space will only be allowed after following all aspects of this program.

PROGRAM REVIEW AND REVISION

Each Department will review entry operations and revise the procedures to correct any deficiencies before subsequent entries are authorized. Any revisions will be reported to the <Safety Officer> in order to revise the written program.

ANNUAL COMPLIANCE REVIEW

The <Safety Officer> will review the program annually in light of actual entry, work, and exit experience to determine how the program can be improved.

Permit-Required Confined Space Compliance Checklist

Sample Safety Program Elements for Structural Steel Fabrications
<table>
<thead>
<tr>
<th>Establishment Name:</th>
<th>Comments/Person Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Y N NA</td>
</tr>
</tbody>
</table>

### 1910.146 (c) General requirements

1. Employer evaluated the workplace to identify and categorize any confined spaces. [(c)(1)]

2. Permit spaces exist and employer informed employees of their existence by posting or other effective means. [(c)(2)]

3. Permit spaces exist, employees will not enter and employer took measures to prevent entry. [(c)(3)]

4. Permit spaces exist, employees will enter permit spaces and employer developed and implemented a written program. [(c)(4)]

5. Employer met the requirements of paragraph (c)(5) and implemented alternate entry procedures. [(c)(5)]

6. Employer appropriately reclassified a permit space to a non permit confined space. [(c)(7)]

7. Multiple employers worked near or performed entries into permit spaces and host employer notified the contractor(s) of the existence of the: permit spaces; hazards of entry; permit requirements of any entry; and precautions, procedures and coordination required for safe work in and around permit spaces. [(c)(8)]

8. Contract employers had a permit entry program and coordinated and communicated with the host employer and other exposed employers regarding hazards, precautions, and procedures used before, during and after entry. [(c)(9)]

### 1910.146 (d) Permit-required confined space program. Permit spaces exist, employees will enter permit spaces and employer developed a program that:

1. Implemented measures to prevent unauthorized entry. [(d)(1)]

2. Identified and evaluated the hazards of permit spaces. [(d)(2)]

3. Implemented the means, procedures, and practices necessary for safe permit space entry operations. [(d)(3)]

4. Provided equipment at no cost to employees, maintained equipment properly, and ensured that employees used that equipment properly. [(d)(4)]

5. Evaluated permit space conditions when entry operations are conducted. [(d)(5)]

6. Provided attendant outside the permit space for the duration of entry operations. [(d)(6)]

7. Included the means and procedures to enable the attendant to respond to an emergency if multiple spaces are monitored. [(d)(7)]

8. Designated the persons who are to have active roles in entry operations and the duties of each such employee. [(d)(8)]

9. Implemented procedures for summoning rescue and emergency services, for providing necessary
emergencies services and for preventing unauthorized personnel from attempting a rescue. [(d)(9)]

1. Implemented a system of preparation, issuance, use and cancellation of entry permits. [(d)(10)]
2. Review entry permits and operations (retaining all permits for 1 year) and revise program to correct deficiencies. [(d)(13-14)]

<table>
<thead>
<tr>
<th>1910.146 (e) Permit system.</th>
<th>Permit spaces exist, employees will enter permit spaces and employer:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Documented (by permit) the completion of measures to ensure compliance with (d)(3) and have the entry supervisor sign the permit. [(e)(1)&amp; (2)]</td>
<td></td>
</tr>
<tr>
<td>2 Made the completed permit available at the time of entry to all authorized entrants or their authorized representatives. [(e)(3)]</td>
<td></td>
</tr>
<tr>
<td>3 Retained each canceled entry permit for at least 1 year to facilitate the review of the permit-required confined space program. [(e)(6)]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1910.146(f) Entry Permit.</th>
<th>Employer met requirements for the entry permit and entry conditions.</th>
</tr>
</thead>
</table>

| 1910.146 (g) Training. | Permit spaces exist, employees will enter permit spaces and employer. Provided and certified training necessary for the safe performance of duties assigned. [(g)(1)] |

| 1910.146 (h), (i), (j) – Duties. | Employer identified individuals as authorized entrants, attendants and entry supervisors and ensured their understanding of the knowledge, skills and duties ascribed to each classification. [(h), (i), (j)] |

<table>
<thead>
<tr>
<th>1910.146 (k) Rescue and emergency services.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Employer provided rescue services either in-house or by arrangement with an off-site rescue service. [(k)(1)]</td>
<td></td>
</tr>
<tr>
<td>2 Employer used retrieval system to facilitate non-entry rescue. A mechanical device was available to retrieve personnel from within vertical permit spaces deeper than 5 feet. [(k)(3)]</td>
<td></td>
</tr>
</tbody>
</table>

| 1910.146(l) Employee participation. | Employer consulted with affected employees and authorized representatives as required. |
SUBSTANCE ABUSE

Purpose and Goal

<Company> is committed to protecting the safety, health and well-being of all employees and other individuals in our workplace. We recognize that alcohol and drug use pose a significant threat to our goals. We have established a drug-free workplace program that balances our respect for individuals with the need to maintain an alcohol and drug-free environment.

- This policy recognizes that employee involvement with alcohol and other drugs can be very disruptive, adversely affect the quality of work and performance of employees, pose serious health risks to users and others, and have a negative impact on productivity and morale.
- As a condition of employment, this organization requires that employees adhere to a strict policy regarding the use and possession of drugs and alcohol.

Covered Workers

Any individual who conducts business for the organization, is applying for a position or is conducting business on the organization's property is covered by our drug-free workplace policy. Our policy includes, but is not limited to executive management, managers, supervisors, full-time employees, part-time employees, contractors, interns and applicants.

Applicability

Our drug-free workplace policy is intended to apply whenever anyone is representing or conducting business for the organization. Therefore, this policy applies during all working hours, whenever conducting business or representing the organization and while on organization property.

Prohibited Behavior

It is a violation of our drug-free workplace policy to use, possess, sell, trade, and/or offer for sale alcohol, illegal drugs or intoxicants.

Notification of Convictions

Any employee who is convicted of a criminal drug violation in the workplace must notify the organization in writing within five calendar days of the conviction. The organization will take appropriate action within 30 days of notification. Federal contracting agencies will be notified when appropriate.

Searches

Entering the organization's property constitutes consent to searches and inspections. If an individual is suspected of violating the drug-free workplace policy, he or she may be asked to submit to a search or inspection at any time. Searches can be conducted of lockers, desks and work stations and vehicles and equipment.

Drug Testing

To ensure the accuracy and fairness of our testing program, all testing will be conducted according to DHHS/SAMHSA guidelines where applicable and will include a screening test; a confirmation test; the opportunity for a split sample; review by a Medical Review Officer, including the opportunity for employees who test positive to provide a legitimate medical explanation, such as a physician's prescription, for the positive result; and a documented chain of custody.
All drug-testing information will be maintained in separate confidential records.

Each employee, as a condition of employment, may be required to participate in pre-employment, random, post-accident, reasonable suspicion, return-to-duty and follow-up testing upon selection or request of management.

The substances that will be tested for are amphetamines, barbiturates, benzodiazepine, cannabinoids, cocaine, methadone, methaqualone, opiates, phencyclidine (PCP), propoxyphene and alcohol.

Testing for the presence of alcohol will be conducted by analysis of breath. Testing for the presence of the metabolites of drugs will be conducted by the analysis of urine.

Any employee who tests positive will be immediately removed from duty, referred to a substance abuse professional for assessment and recommendations, required to pass a Return-to-Duty test and sign a Return-to-Work Agreement and subject to ongoing, unannounced, follow-up testing for a period of five years.

An employee will be subject to the same consequences of a positive test if he/she refuses the screening or the test, adulterates or dilutes the specimen, substitutes the specimen with that from another person or sends an imposter, will not sign the required forms or refuses to cooperate in the testing process in such a way that prevents completion of the test.

Consequences

One of the goals of our drug-free workplace program is to encourage employees to voluntarily seek help with alcohol and/or drug problems. If, however, an individual violates the policy, the consequences are serious.

In the case of applicants, if he or she violates the drug-free workplace policy, the offer of employment can be withdrawn. The applicant may reapply after one year and must successfully pass a pre-employment drug test.

If an employee violates the policy, he or she will be subject to progressive disciplinary action and may be required to enter rehabilitation. An employee required to enter rehabilitation who fails to successfully complete it and/or repeatedly violates the policy will be terminated from employment. Nothing in this policy prohibits the employee from being disciplined or discharged for other violations and/or performance problems.

Return-to-Work Agreements

Following a violation of the drug-free workplace policy, an employee may be offered an opportunity to participate in rehabilitation. In such cases, the employee must sign and abide by the terms set forth in a Return-to-Work Agreement as a condition of continued employment.

Assistance

<Company> recognizes that alcohol and drug abuse and addiction are treatable illnesses. We also realize that early intervention and support improve the success of rehabilitation. To support our employees, our drug-free workplace policy:

- Offers all employees and their family members assistance with alcohol and drug problems through the Employee Assistance Program (EAP).

Treatment for alcoholism and/or other drug use disorders may be covered by the employee benefit plan. However, the ultimate financial responsibility for recommended treatment belongs to the employee.
Confidentiality

All information received by the organization through the drug-free workplace program is confidential communication. Access to this information is limited to those who have a legitimate need to know in compliance with relevant laws and management policies.

Shared Responsibility

A safe and productive drug-free workplace is achieved through cooperation and shared responsibility. Both employees and management have important roles to play.

All employees are required to not report to work or be subject to duty while their ability to perform job duties is impaired due to on- or off-duty use of alcohol or other drugs.

In addition, employees are encouraged to:

- Be concerned about working in a safe environment.
- Use the Employee Assistance Program.
- Report dangerous behavior to their supervisor.
- It is the supervisor’s responsibility to:
  - Observe employee performance.
  - Document negative changes and problems in performance.

Communication

Communicating our drug-free workplace policy to both supervisors and employees is critical to our success. To ensure all employees are aware of their role in supporting our drug-free workplace program:

All employees will receive a written copy of the policy.

The policy will be reviewed in orientation sessions with new employees.
<Company>

EMPLOYEE DRUG/ALCOHOL TEST FOR CAUSE REPORT

Date: ______________________  Time: ______________

Department supervisor: ______________________

Employee: ______________________

Shop Steward: ______________________

The above referenced department supervisor has determined that the above referenced employee appears unfit for duty in his present condition. The employee has accepted/refused (cross out one) Drug/Alcohol testing.

Employee Signature: ______________________  Date: ______

Department supervisor Signature: ______________________  Date: ______

Witness Signature: ______________________  Date: ______

Additional Comments: (Contact <Plant Manager> Before Completing)

Why is Testing Ordered? (Be Specific)
<COMPANY> SUBSTANCE ABUSE AUTHORIZATION AND CONSENT

I hereby authorize and give full permission to <Company> and / or their designated medical representatives to send specimens of my urine or blood to a laboratory for a screening test for the presence of illegal drugs, alcohol or prescription drugs taken without a prescription and to receive results of the tests and to give the results to the State Department of Labor and Employment Security, medical providers and workers compensation insurance carriers.

I will hold all parties concerned harmless, meaning I will not file nor hold responsible for any alleged harm to me for interfering with my obtaining a job or for continuing employment with <Company> for not submitting to the tests or as a result of the report of the tests. This includes possible clerical or laboratory error.

This policy and authorization has been explained to me in a language I understand and I have been told that I am entitled to a copy of the test results. I understand this is a legally binding document.

_________________________________________  _______________________________________
Signature                                                      Printed Name

_________________________________________  _______________________________________
Employee Number                                                Date
BLOOD-BORNE PATHOGENS

Purpose

Prevent incidental exposure and disease from microorganisms present in human blood.

<Company> has determined there are no jobs in the company where employees come in contact with human blood or potentially infectious materials, which may result in exposure to blood-borne pathogens. First aid responder’s primary job functions are not rendering first aid. This plan is intended to prevent exposure to blood-borne pathogen resulting from occasional unplanned events.

Recordkeeping

See Chapter 2.

Training

See Chapter 3.

Procedures

<Company> will provide hepatitis B vaccinations to designated first aid responders. First Aid Responders choosing not to have the vaccinations will sign the hepatitis B declination form.

Blood-borne pathogen kits are available and located in or near the medical supply cabinet. These kits include disposable gloves and labeled containers for disposal of contaminated PPE.

Incidents exposing personnel to blood-borne pathogens will be reported to the <Safety Officer>.

If a first aid incident occurs, the first aid responders will take precautions to decontaminate work surfaces, tools and equipment. Personal protective equipment will be used during cleanup.

At the earliest time which first aid can be transferred without endangering life, first aid responsibility will be transferred to a supervisor with first aid training.

Mechanical means such as tongs, forceps or a brush and a dust pan will be used to pick up contaminated broken glassware. The waste will be treated as regulated waste and disposed of in closable and labeled or color-coded containers. When storing, handling, transporting, or shipping, place other regulated waste in containers that are constructed to prevent leakage. The waste will be discarded according to federal, state, and local regulations.

Immediately after the incident, employees who may have been exposed will be offered an evaluation by a health professional. The health professional conducting the evaluation will be given:

- A copy of this Blood-Borne Pathogens Program.
- A report of the incident that generated the potential for exposure.
- Results of the source individual's blood test if possible.
- Relevant employee medical records.

<Company> will receive a report of all relevant evaluation results. The written opinion for post-exposure evaluation and follow-up will be limited to whether or not the employee has been informed of the results of the medical evaluation and any medical conditions which may require further evaluation and treatment.
For HB vaccinations, the opinion will be limited to whether the employee required or received the vaccine. All other diagnoses must remain confidential and not be included in the written report to our firm.

In the event of a first aid incident in which the First Aid Responder's clothes become contaminated, the following actions will be taken:

- Contaminated laundry will be handled as little as possible and with a minimum of agitation.
- Appropriate personal protective equipment will be worn when handling contaminated laundry.
- Contaminated laundry will be placed in labeled bags at its location of use, and taken by a commercial launderer. The launderer will be given the appropriate warnings.
HEPATITIS B VACCINATION DECLINATION

I understand that due to my occupational exposure to blood or other potentially infectious material I may be at risk of acquiring Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with the Hepatitis B vaccine at no charge to myself. However, I decline Hepatitis B vaccine at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

________________________   ______________________
Employee Signature           Date
ERGONOMICS BACKS AND SOFT TISSUES

1 Definitions

a. Ergonomics: The science of designing the job, equipment and workplace to fit the team member.

b. MSD: Musculoskeletal disorder

c. OSHA Guidelines: A guideline is a tool to assist employers in recognizing and controlling hazards. It is voluntary. Failure to implement a guideline is not itself a violation of the General Duty Clause of the OSHA Act. Guidelines that OSHA develops will provide information to help employers identify ergonomic hazards in their workplace and implement feasible measures to control those hazards.

d. Administrative Controls/Work Practices: Changes in work procedures such as written safety policies, rules, supervision, schedules, and training with the goal of reducing the duration, frequency, and severity of exposure to hazardous chemicals or situations.

e. Engineering Controls: A physical change in the work environment to reduce the duration, frequency, and severity of exposure to a chemical or physical hazard.

f. Hierarchy of Controls: A sequence of hazard control options from most effective to least effective. Work your way down the list and implement the best measure possible for your situation. The most effective is substitution of less hazardous materials or methods, then engineering controls, then administrative controls and finally PPE. Notice that the use of protective equipment is the last resort, to be used when all other control measures have been ruled out in the short term.

2 Policy

a. Prior to any work, ergonomic hazards will be identified and a job or task specific activity plan developed.

3 Responsibilities

a. The <Safety Officer> on the is responsible for the implementation of this policy and is responsible for maintaining this document.

4 Overview

a. Ergonomics is a reasonable and applied science used to design an environment which optimizes team member well-being and overall system performance as well as eliminates the opportunity for soft tissue pain or a Musculoskeletal Disorder (MSD). Soft tissue pain, unlike a sudden traumatic event (slip, trip or fall) that causes a broken bone or other visible injury may come on slowly; over time it is often hard to see the evidence of the problem.

b. These disorders affect the muscles, tendons, ligaments, joints, cartilage, nerves, blood vessels and spinal discs.

i. You must ask yourself these questions when assessing a job:
   1. How long is the duration of the exposure?
   2. How often is the frequency of the exposure?
3. **How much** is the intensity of the exposure?

5 Prevention

   a. Identification and elimination or mitigation of ergonomic hazards is the first step in prevention. Most MSD’s are preventable. Working smarter not harder and having a basic knowledge about the causes of these types of injuries is the key to prevention. Early reporting of aches and pains can reverse or minimize soft tissue injury, with or without medical attention. Ergonomic safeguards can be put into action before the injury occurs, preventing the need for medical care in many cases. The longer a person works with an ache or pain, the longer it will take to recover.

   b. Frequent stretching is an important tool we tend to underutilize. Stretches help prevent MSDs. Warming up before work is the best way to reduce the risk of these injuries. Cold joints, tendons and muscles are more likely to get strained by sudden movement or exertion. Benefits of pre-work stretches are:
      1. Raises the heart rate (the body is prepared for physical exertion).
      2. Speeds up nerve impulses (reflexes are enhanced).
      3. Reduces muscle tension while reducing the risk of injury, particularly to connective tissue like tendons.
      4. Increases flexibility, joint mobility and sends oxygenated blood to the muscles groups.

   i. Stretches are required by all team members prior to the start of their shift and prior to returning to work after the lunch break. Many projects have found increased benefits in reducing MSD’s by doing additional stretches (i.e. after breaks). Additionally, projects should consider additional stretches when work shifts extend beyond 10 hours.

   ii. Management is responsible to ensure that teams are stretching effectively.
      1. Doing the proper stretches
      2. Doing them smoothly without bouncing
      3. Focusing on the muscle group intended for each stretch
      4. Holding each stretch for the **full 10 seconds**

   iii. Job rotation can be an option to do work tasks that have a high risk of MSD injuries. This allows for team members to get the rest they need to do higher risk (repetitive, force, vibration, etc.) activities and recover from them without the onset of any MSD injuries. Keep in mind that effective job rotations are when you work different muscle groups between repetitive job functions.

6 Planning for Ergonomic Hazards:

   a. When planning any job, a hazard analysis is required to identify sources of potential hazards and what engineering, administrative or personal protective equipment might be needed to eliminate or minimize those hazards. Ergonomic hazards should be included in this hazard analysis. The first step of a hazard analysis should be a walkthrough of the area looking for the sources of potential hazards. Most MSD injuries are caused by awkward postures (including work above the shoulders and below the knees). The risk factors include: force, repetition, vibration, contact stress, posture, and the environment. Here are some things OSHA suggests you look for to identify ergonomic hazards:
      
      - Ensure the grips on your hand tools are not so large that it is difficult to grasp or too small that you must use your fingertips.
      - Be sure that sharp edges are covered.
• All tools must be kept sharp and tuned up, so that the tool does the work and not the person holding it.
• Do not work overhead for extended periods of time.
• Arms outstretched and elbows raised.
• If there is vibration exposure; consider anti-vibratory gloves or anti-vibratory tool handle wraps. When feasible consider purchasing newer tools that may be available with built in anti-vibratory features.
• Repetitive load handling.
• Handling loads that require awkward body postures, such as bending and reaching out to an object that cannot be held close to the body in an erect posture.
• Handling excessively heavy and/or bulky, difficult-to-hold materials.
• Twisting the torso to one side while lifting.
• Repetitive or sustained bending over.
• Handling demands beyond the capabilities of team members assigned to the job.
• Unprotected, prolonged use of vibrating tools and equipment.
• Repetitive flexion (wrist bent inward toward palm), extension (wrist bent upward toward outer forearm) or deviation (wrist bent to the side in either direction) of the wrist, especially while exerting force or grasping an object.
• Direct pressure on or compression of delicate parts of the hand or wrist.
• Repetitive twisting hand motions or repetitive forceful hand work.
• Poor body mechanics.
• Exposure to cold temperatures.
• Stress
  • Working with the neck bent at more than a 15 degree angle.
  • Hand tools that are not balanced as they are difficult to hold.
  • Hand tools with a trigger-grip span of more than 4 inches between the thumb and forefinger.
  • Hand tools with direct air exhaust onto the hand.
  • Hand tools that do not meet the requirements of the job.
  • Using body parts for hammers (hands, feet, etc.).
  • Repetitive hand, arm and shoulder motions.
  • Controls, tools or materials beyond easy reach.
  • Controls that require too much force to operate easily.
  • Working with the body leaning forward.
  • Over excessive twisting or stretching.
  • Repetitive pushing or pulling, including requirements for high strength.
  • Standing or sitting for long periods of time.
  • Working in an immobile position for extended periods.
  • Static muscular work.
  • Poorly designed work surfaces and chairs.
  • Work space that doesn’t accommodate the smallest person for reach and the largest person for clearance.
  • Inadequate lighting and visibility.
  • Peak loads of muscular effort.

b. Select the Appropriate Control Measures

Use the hierarchy of controls to eliminate or reduce the hazard. Substitute a less hazardous method or material, use engineering controls, or use work practices to reduce the risk to our team members. PPE is always the last resort. Below is a list of generic ergonomic control measures that can be used as guidelines to address some of the specific ergonomic hazards on your site:
• To eliminate overhead work bring the team member up to the work by elevating the team member. If you must do overhead work, implement frequent breaks to allow the blood to flow back into the team members hands as the heart does not pump blood above shoulder level efficiently.

• If there is vibration exposure; consider purchasing newer tools that may be available with built in anti-vibratory features. If this is not feasible, add anti-vibratory tool handle wraps or anti-vibratory gloves.

• To minimize work below the knee (bending/kneeling) consider options to elevate the work. Use saw horses, shipping boxes, tables, etc. to get the work to a more comfortable height for the team member doing the work.

• To minimize strain while pouring or dumping items into containers (paint, sand, concrete, etc.) consider installing a screen over the top of receptacle; this allows the team member to place the bag on the screen while emptying vs. having to hold it suspended.

• Look for jobs that require heavy or repetitive material handling and consider ways to limit these requirements.

• To minimize lifting hazards consider using powered equipment (fork truck, loader, crane) whenever feasible.

• Consider the size and frequency of use for pails or buckets; adding padding to the handles, increases grip strength and minimizes potential for hand/wrist injuries is frequent use is required.

• Identify areas were excessive reach is required; take steps to move materials to a location closer to the team member when feasible.

• Utilize dollies, hand carts and pallet jacks when possible to assist with material handling.

• Consider awkward and/or static positions as an ergonomic hazard. Implement additional stretch breaks to provide rest and recovery time when these situations cannot be eliminated or minimized.

• Conduct (or contact corporate safety to schedule) an ergonomic evaluation for all office/seated team members.

Utilizing these corrective actions can not only prevent MSD injuries to team members but often these changes/improvements will actually increase productivity as well. If everyone is looking at how to best use energy, equipment and exertion to get the job done in the most efficient, effective and safest way; we all win.

7 Lifting

1. Team members will not lift over 50 pounds alone. If a load is too heavy to lift alone, seek additional help. Mechanical means are encouraged. We provide lifting/force aids from come-a-longs, chain falls, to forklifts and overhead cranes, depending on the nature of the job. Proper lifting techniques are essential and are illustrated at the end of this Safety Policy and Procedure. Individual lifts over 50 lbs will require additional planning and approval by the project manager to evaluate materials and/or individuals capabilities.
2. Back pain injuries/illnesses can be prevented. Understand your back and take proper care of it. Here are some basic guidelines to follow:
   - Warm up before you lift. Bend or stretch gently to get ready.
   - Use proper lifting techniques, as illustrated on attached sheets.
   - Never twist at the waist. Pivot from your feet.
   - Push, rather than pull. It’s much easier on your back. Brace your hands on the object, set your back in an extended position, then do all the pushing and moving with your legs.
   - If you’re lifting or working overhead, get closer to the object or the work you’re doing.
   - Get help. If you must lift something that feels heavy or awkward to you, ask someone to help, or get equipment to help. Use dollies, carts or mechanical assistance at all times.
   - Take your time. Hurrying causes your muscles to act inappropriately, increasing the chance of injury.
   - STRETCH. Maintaining any position too long can be harmful. If you’re sitting, kneeling or bent over for any length of time, stop frequently, stand and stretch your back, placing your hands just above your waist, against your back. If you’re working in a standing position, or with arms overhead, stop frequently, squat and stretch.
   - If you have a back problem, whether job related or not, inform your supervisor immediately.
   - Exercise daily. Keep the muscles that surround your spine strong and flexible.

8. Injuries
   Immediately report any new aches and pains to your supervisor or <Safety Manager>. You will be asked to complete a First Report of Incident and taken to a clinic to be evaluated. The sooner a soft tissue problem is detected and treated, the greater opportunity for a quick and successful healing.

9. OSHA Enforcement & Guidelines
   a. OSHA will conduct inspections for ergonomic hazards and issue citations under the General Duty Clause and issue ergonomic hazard alert letters where appropriate.
   b. OSHA has established ergonomic guidelines. These voluntary guidelines will provide information to help employers identify ergonomic hazards in their workplaces and implement feasible measures to control those hazards.

10. Training
   i) Training will be conducted annually with all team members. Training will include:
      (1) What MSD’s are and what symptoms are related.
      (2) Injury and risk factors associated with ergonomic hazards.
      (3) The hierarchy of controls used to eliminate or minimize ergonomic risks.
      (4) Stretching & Proper lifting techniques

11. Safety at Home
   i. Ergonomic hazards are present even at home. Be aware of these hazards and take action to eliminate or minimize them at home as well. A few ergonomic hazards to consider at home are:
      - Vibration hazards: running a chain saw, riding motorcycles or four-wheelers and operating lawn mowers all expose team members to a vibration hazard.

Sample Safety Program Elements for Structural Steel Fabrications
• Lifting hazards: We all lift and carry things at home. Remember to keep the weight down, use proper lifting techniques and ask for assistance when necessary.
• Twist/Turn: Shoveling (dirt or snow) is an ergonomic hazard. Avoid twisting when shoveling, limit the weight in each load, and keep your throwing distance below 4’ away from you.
Proper Lifting Techniques:

- **Take your time:** Stretch slowly and smoothly; never bounce.
- **Do each stretch gently:** Maintain normal breathing during each movement.
- **You should not feel pain while stretching:** If any stretch causes continued discomfort, you should avoid it.
- **Do not rush through stretches.**
- **Focus attention on muscle being stretched; try to limit movement in other body parts.**

Back injuries can be avoided if your back is maintained in good normal alignment and if you abide by the following rules:

1. **Keep a wide base of support.**
   Spread your feet apart to make yourself more stable. One foot may be placed ahead of the other.

2. **Keep the object close to you.**
   The farther the object is from you, the more pressure you will have on your low back. A forty pound box held two feet in front of you could increase your low back pressure by as much as 400 pounds.

3. **Bend your knees and hips.**
   You need to bend your hips and knees in order to lower yourself at the same time.
4. **Maintain your lumbar curve.**
   This is the key. You should extend your back slightly to allow your butt to stick out. This will keep your back muscles in a position where they can work with the most strength and maintain the normal curve in the low back to prevent disc injuries. Keep your lumber spine in its normal inward curve during the lift.

5. **Do not twist or bend sideways.**
   Set your spine in the normal position with your back slightly extended. Face the object you are picking up or working on. If you must turn to change your direction, pivot with your feet.
FLEXIBILITY AND STRENGTH

The lack of flexibility is a major risk factor in back injuries. There are many muscles in the thighs, the buttocks, the abdomen, and the back area itself that attach to the spine and the pelvis. When any of these muscles become tight and lose their flexibility (due to excessive sitting, standing, over-working, sustained positioning or pain) they produce a pulling or holding force on the spine or pelvis. This removes some of the spine’s ability to move fully and safely.

Muscle stretching is very important to spine health but must be done properly. Fast, bouncing stretches will irritate the muscle fibers and can actually cause them to tighten in response. Effective and safe stretching must be done slowly and deliberately, always trying to coax the muscle into a more lengthened position. Stretching can be uncomfortable but should not result in pain that lasts after the exercise. Muscle strength is important to the prevention of injury. Muscles need enough strength to move vertebrae while protecting the joints and ligaments. Muscles need a balance of flexibility and stability.

Physical therapists have identified some simple quick exercises that are good for your back to build flexibility and strength of muscles and provide repair and nutrition of discs and joints. Start gently and do not push yourself too much. These exercises are intended to preserve a normal back. They are often used to treat certain back pain problems. If you have back pain, or if these exercises bother your back, notify your supervisor and you may wish to consult a physical therapist for some different exercises.

1. **To stretch hamstrings.**
   Lie on your back with legs flat. Pull one knee toward your chest. Grasp your thigh under your knee and hold it firmly to your chest as you try to straighten your leg at your knee. Make it a slow stretch-and-relax process for about a minute to each leg.
2. **Prone press-ups.**
This is valuable to increase joint mobility and disc nutrition and repair. It also stretches hip flexor muscles in the groin. This exercise must be done gently. Lie flat on your belly. Place your hands on the surface, so that you bend backwards at your lower back. Move gently. Hold the position three seconds. Repeat three times only. Do not over-do this one.

![Prone press-ups](image)

3. **Diagonal half sit-ups.**
The safest and most effective sit-ups are done only part way up and on a diagonal, with knees bent. This helps low back mobility and trunk muscle stability. This exercise is done lying on your back with your legs bent. Reach your hands forward and curl up half way turning your body to one side. Hold briefly. Lie back and relax a second. Then sit up again toward the other direction. Repeat to fatigue.

![Diagonal half sit-ups](image)

4. **Active back extension**
Do this one slowly and gently. Lie flat on your belly with your arms down at your sides. Lift your head, chest, and arms up off the surface a few inches. Do not extend your head back. Hold a few seconds. Relax. Repeat to fatigue.

![Active back extension](image)

5. **Passive flexion stretch.**
Lie on your back. Pull your knees into your chest and hold them there relaxed for 30 seconds. Do a gentle standing back-bend after this.

![Passive flexion stretch](image)
HEARING CONSERVATION PROGRAM

I. OBJECTIVE

The objective of the Hearing Conservation Program is to minimize occupational hearing loss by providing hearing protection, training, and annual hearing tests to all persons working in areas or with equipment that have noise levels equal to or exceeding an eight-hour time-weighted average (TWA) sound limit of 85 dBA (decibels measured on the A scale of a sound level meter). A copy of this program will be maintained by all affected departments. A copy of OSHA’s Hearing Conservation Standard, 29 CFR 1910.95, can be obtained from <Safety Manager>. A copy of the standard will also be posted in areas with affected employees.

II. ASSIGNMENT OF RESPONSIBILITY

A. Management

1. Use engineering and administrative controls to limit employee exposure.
2. Provide adequate hearing protection for employees.
3. Post signs and warnings in all high noise areas.
4. Conduct noise surveys annually or when new equipment is needed.
5. Conduct annual hearing test for all employees.
6. Conduct hearing conservation training for all new employees.
7. Conduct annual hearing conservation training for all employees.

B. Employees

1. Use company-issue approved hearing protection in designated high noise areas.
2. Request new hearing protection when needed.
3. Exercise proper care of issued hearing protection.

III. PROCEDURES

A. Noise Monitoring

1. Monitoring for noise exposure levels will be conducted by <Safety Manager>. It is the responsibility of the individual departments to notify <Safety Manager> when there is a possible need for monitoring. Monitoring will be performed with the use of sound level meters and personal dosimeters at the discretion of <Safety Manager>.

2. Monitoring will also be conducted whenever there is a change in equipment, process or controls that affect the noise levels. This includes the addition or removal of machinery, alteration in building structure, or substitution of new equipment in place of that previously used. The department supervisor must inform <Safety Manager> when these types of changes are instituted.

B. Employee Training

1. Affected employees will be required to attend training concerning the proper usage and wearing of hearing protection. The training will be conducted by <Safety Manager>, or a designated representative, within a month of hire and annually thereafter.

2. Training shall consist of the following components:

   a. how noise affects hearing and hearing loss;
   b. review of the OSHA hearing protection standard;
c. explanation of audiometric testing;
d. rules and procedures;
e. locations within company property where hearing protection is required; and
f. how to use and care for hearing protectors.

3. Training records will be maintained by <Safety Manager> (see Attachment A).

C. Hearing Protection

Management, supervisors, and employees shall properly wear the prescribed hearing protection while working or traveling through any area that is designated as a high noise area.

1. Hearing protection will be provided at no cost to employees who perform tasks designated as having a high noise exposure and replaced as necessary. It is the supervisor’s responsibility to require employees to wear hearing protection when noise levels reach or exceed 85 dBA. Those employees will have the opportunity to choose from at least two different types of hearing protection.

2. Personal stereo headsets are not approved for hearing protection and are not permitted in any operating area of company property.

3. Signage is required in areas that necessitate hearing protection. It is the responsibility of <Safety Manager> to provide signage to the appropriate areas.

4. Preformed earplugs and earmuffs should be washed periodically and stored in a clean area. Foam inserts should be discarded after each use. Hands should be washed before handling preformed earplugs and foam inserts to prevent contaminants from being placed in the ear.

5. <Safety Manager> will keep a log of the areas or job tasks designated as requiring hearing protection, as well as the personnel affected by this Hearing Conservation Program (see Attachment B).

D. Audiograms/Hearing Tests

1. Employees subject to the Hearing Conservation Program who have time-weighted average (TWA) noise exposures of 85 dBA or greater for an eight (8) hour work shift will be required to have both a baseline and annual audiogram. The audiograms will be provided by the Company with no cost to the employee.

2. The baseline audiogram will be given to an employee within one (1) month of employment with <Company Name> and before any exposure to high noise levels. Annual audiograms will be performed within one year from the date of the previous audiogram. It is the responsibility of the individual and <Safety Manager> to schedule the annual audiogram.

3. If an annual audiogram shows that an employee has suffered a standard threshold shift, the employee will be retested within thirty (30) days of the annual audiogram. If the retest confirms the occurrence of a standard threshold shift, the employee will be notified in writing within twenty-one (21) days of the confirmation. Employees who do experience a standard threshold shift will be refitted with hearing protection and provided more training on the effects of noise.
Appendix: Useful Forms

Attachment A

Hearing Conservation Training Log

Training Date:______________________________

Topic:______________________________

Training Conducted by:______________________________

<table>
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<th>Employee Name (printed)</th>
<th>Employee Signature</th>
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# Attachment B

## Record of Hearing Protection Needs

<Company Name>

Personnel in Hearing Conservation Program

<table>
<thead>
<tr>
<th>Date</th>
</tr>
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Hearing protection is required for and has been issued to the following personnel:

<table>
<thead>
<tr>
<th>Employee Name</th>
<th>Department</th>
<th>Job Description/ Equipment Being Used</th>
<th>Type of Hearing Protection Issued</th>
<th>Date Issued</th>
</tr>
</thead>
<tbody>
<tr>
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# USEFUL FORMS

## EMPLOYEE ORIENTATION

### ORIENTATION CHECKLIST

<table>
<thead>
<tr>
<th>Employee:</th>
<th>Department:</th>
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<tbody>
<tr>
<td>Date Hired:</td>
<td>Supervisor:</td>
</tr>
</tbody>
</table>

Date Reviewed:

1. Company safety policy statement and copy of rules provided and explained
2. Reviewed injury reporting procedures
3. Reviewed personal protective equipment and use
4. Reviewed lockout/tagout procedure
5. Reviewed safe lifting techniques
6. Reviewed housekeeping procedures
7. Reviewed location of first aid kits
8. Forklift operator training required? When?
9. Reviewed hazard communication program
10. Reviewed plant hazards
11. Reviewed specific job hazards
12. Reviewed substance abuse policy
13. Reviewed disciplinary program
14. Reviewed safety incentive program
15. Reviewed evacuation procedures and duties
16. Injury prevention program
17. Confined space entry program
18. Other

I acknowledge that information on the above subjects were furnished to me during my orientation.

<table>
<thead>
<tr>
<th>Employee’s Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

I have instructed or assured the instruction of the above named employee in the fundamentals of safety practices.

<table>
<thead>
<tr>
<th>Supervisor’s Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

Sign and return the original copy immediately to the Personnel Office following the employee’s date of hire or review. Retain a copy in the employee’s departmental file.
### DRIVER QUALIFICATION/VEHICLE INSPECTION

#### DRIVER ORIENTATION CHECKLIST

<table>
<thead>
<tr>
<th>Subject</th>
<th>Trainer</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introductions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Management Personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Supervisor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Co-Workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reporting to Work</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Locations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Signing In</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Work Standards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Duties &amp; Responsibilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Motor Vehicle Record</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Review Procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Performance Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Incentive Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Disciplinary Procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Vehicle Accident Reporting &amp; Review Procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pre-Trip, On the Road &amp; Post Trip Inspections</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Inspection Procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Equip. Condition Reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Correcting Defects</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Procedures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Vehicle Accident Reporting &amp; Review Procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Breakdowns</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rules &amp; Regulations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Company Safety Rules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Company Substance Abuse Policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Local Regulations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• State Regulations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Fed. Motor Carrier Safety Regulation</td>
<td></td>
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</tr>
</tbody>
</table>

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Sample Safety Program Elements for Structural Steel Fabrications
### DRIVER QUALIFICATION/VEHICLE INSPECTION (continued)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Trainer</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Routes &amp; Schedules</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Road Conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hazardous or Congested Routes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Height and Widths Clearances</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equipment Familiarization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Operator Controls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Emergency Equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Air Brakes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Handling of Cargo</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Shippers &amp; Consignees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Bills &amp; Manifests</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Safety Security Precautions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hazardous Materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Special Equipment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Load Tiedowns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Winches or Hoists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Pumps &amp; Hoses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Specialized Safety Equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Completion Trip</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Parking and Refueling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Completing Reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Post-Trip Inspections</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Driver Name</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Driver Signature</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Date</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## POWERED UNIT INSPECTION

### BI-MONTHLY INSPECTION FOR CARS AND TRUCKS
(Vehicles to be surveyed daily and the inspections to be documented bi-monthly.)

| Vehicle: |  
|----------|---|

<table>
<thead>
<tr>
<th>General Conditions</th>
<th>In-Cab</th>
<th>Exterior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabs/Doors/Windows</td>
<td>Gauges/Warning Indicators</td>
<td>Lights</td>
</tr>
<tr>
<td>Body/Doors</td>
<td>Windshield Wipers/Washers</td>
<td>Reflectors</td>
</tr>
<tr>
<td>Oil Leak</td>
<td>Horns</td>
<td>Suspension</td>
</tr>
<tr>
<td>Grease Leak</td>
<td>Heater/Defroster</td>
<td>Tires</td>
</tr>
<tr>
<td>Coolant Leak</td>
<td>Mirrors</td>
<td>Wheels/Rims/Lugs</td>
</tr>
<tr>
<td>Fuel Leak</td>
<td>Steering</td>
<td>Battery</td>
</tr>
<tr>
<td>Other (identify)</td>
<td>Clutch</td>
<td>Exhaust</td>
</tr>
</tbody>
</table>

### Remarks:

<table>
<thead>
<tr>
<th>Service Brakes</th>
<th>Brakes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Brakes</td>
<td>Air Lines</td>
</tr>
<tr>
<td>Emergency Brakes</td>
<td>Light Line</td>
</tr>
<tr>
<td>Triangles</td>
<td>Fifth Wheel</td>
</tr>
<tr>
<td>Fire Extinguisher</td>
<td>Other Coupling</td>
</tr>
<tr>
<td>Other Safety Equipment</td>
<td>Tie-Downs</td>
</tr>
<tr>
<td>Spare Fuses</td>
<td>Rear-End Protection</td>
</tr>
<tr>
<td>Seat Belts</td>
<td>Other (identify)</td>
</tr>
<tr>
<td>Other (identify)</td>
<td>No Defects</td>
</tr>
</tbody>
</table>

**Remarks:**

**Remarks:**
**TRAILER INSPECTION**

<table>
<thead>
<tr>
<th>BI-MONTHLY INSPECTION FOR CARS AND TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Vehicles to be Surveyed Daily and the Inspections to be Documented bi-monthly.)</td>
</tr>
</tbody>
</table>

**Trailer Number:** ________________

<table>
<thead>
<tr>
<th>Item</th>
<th>Status</th>
<th>Other (identify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body/Doors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landing Gear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear-End Protection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tie-Downs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tires</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kingpin/Upper Plate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (identify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheels/Rims/Lugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fifth Wheel (Dolly)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brakes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Coupling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Devices</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No Defects</td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:** ______________________________________________________

**Reporting Driver**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Maintenance Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>_______________</td>
<td>Repairs Made</td>
</tr>
<tr>
<td>Name:</td>
<td>No Repairs Needed</td>
</tr>
<tr>
<td>_______________</td>
<td>R.O. #s</td>
</tr>
</tbody>
</table>

**Emp. #:** _______________

Certified by: ___________________

**Branch:** ___________________

**Reviewing Driver**

<table>
<thead>
<tr>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>_______________</td>
</tr>
</tbody>
</table>

**Name:** _______________

**Emp. #:** _______________

**Remarks:** ______________________________________________________

---

Sample Safety Program Elements for Structural Steel Fabrications
### CRANES

#### MONTHLY CRANE INSPECTION

<table>
<thead>
<tr>
<th>Item</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crane ID: ___________ Inspector: _______________ Date: ___________</td>
<td></td>
</tr>
<tr>
<td>Operating Mechanism—check wear distortion and fractures</td>
<td></td>
</tr>
<tr>
<td>Limit Switches—check adjustment and wear</td>
<td></td>
</tr>
<tr>
<td>Hook—check for nicks, distortion and fracture</td>
<td></td>
</tr>
<tr>
<td>Hydraulic System—check leaks and abrasions</td>
<td></td>
</tr>
<tr>
<td>Chains—check wear and elongation</td>
<td></td>
</tr>
<tr>
<td>Wire Rope—check wear</td>
<td></td>
</tr>
<tr>
<td>Slings—check wear</td>
<td></td>
</tr>
<tr>
<td>Rope reeving</td>
<td></td>
</tr>
<tr>
<td>Drive Chain—check stretching</td>
<td></td>
</tr>
<tr>
<td>Brake System—check adjustment and wear</td>
<td></td>
</tr>
<tr>
<td>Fasteners—check tightness</td>
<td></td>
</tr>
<tr>
<td>Electrical Apparatus—check components for function, loose connections, or deterioration</td>
<td></td>
</tr>
<tr>
<td>Lock and Clamp Mooring Devices—check function and wear</td>
<td></td>
</tr>
<tr>
<td>Drive Gears and CAM Followers—check</td>
<td></td>
</tr>
<tr>
<td>Oil and Grease—check</td>
<td></td>
</tr>
</tbody>
</table>
## CRANES

### ANNUAL CRANE INSPECTION

<table>
<thead>
<tr>
<th>Item</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crane ID: ___________________ Inspector: ___________________ Date: __________</td>
<td></td>
</tr>
<tr>
<td>Hooks—magnetic particle inspection</td>
<td></td>
</tr>
<tr>
<td>Chain Drive Sprockets—check wear</td>
<td></td>
</tr>
<tr>
<td>Sheaves—check wear and cracks</td>
<td></td>
</tr>
<tr>
<td>Drums—check wear and cracks</td>
<td></td>
</tr>
<tr>
<td>Lock and Clamp Mooring Devices—check wear, distortion and fractures</td>
<td></td>
</tr>
<tr>
<td>Bridge End Stops—check bolts for tightness and wear</td>
<td></td>
</tr>
</tbody>
</table>
## Daily Crane Inspection

<table>
<thead>
<tr>
<th>Item</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crane ID:</td>
<td></td>
</tr>
<tr>
<td>Inspector:</td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td></td>
</tr>
<tr>
<td>All Controls</td>
<td></td>
</tr>
<tr>
<td>Swing</td>
<td></td>
</tr>
<tr>
<td>Boom</td>
<td></td>
</tr>
<tr>
<td>Hoist</td>
<td></td>
</tr>
<tr>
<td>Telescope Boom</td>
<td></td>
</tr>
<tr>
<td>Swing Brake</td>
<td></td>
</tr>
<tr>
<td>Swing Lock</td>
<td></td>
</tr>
<tr>
<td>Automatic Boom Kickout</td>
<td></td>
</tr>
<tr>
<td>Boom Angle Indicator</td>
<td></td>
</tr>
<tr>
<td>Load Indicating Computer</td>
<td></td>
</tr>
<tr>
<td>Anti-Two Block Kickout</td>
<td></td>
</tr>
<tr>
<td>Signal Horn</td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td></td>
</tr>
<tr>
<td>Windshield Wipers</td>
<td></td>
</tr>
<tr>
<td>Heater and Defroster</td>
<td></td>
</tr>
<tr>
<td>Fire Extinguisher</td>
<td></td>
</tr>
<tr>
<td>Lights</td>
<td></td>
</tr>
<tr>
<td>Overall Cleanliness</td>
<td></td>
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</table>
## Daily Crane Inspection (continued)

<table>
<thead>
<tr>
<th>Item</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crane ID:</td>
<td></td>
</tr>
<tr>
<td>Inspector:</td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td></td>
</tr>
<tr>
<td>Load Rating Charts</td>
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</tr>
<tr>
<td>Hand Signal Decals</td>
<td></td>
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<tr>
<td>Electric Hazard Decals</td>
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<tr>
<td>Air Pressure</td>
<td></td>
</tr>
<tr>
<td>Oil Pressure</td>
<td></td>
</tr>
<tr>
<td>Outrigger Controls and Locks</td>
<td></td>
</tr>
<tr>
<td>Main Winch, Leaks, Condition</td>
<td></td>
</tr>
<tr>
<td>Cable Spooling Properly</td>
<td></td>
</tr>
<tr>
<td>Main Turntable Lubrication</td>
<td></td>
</tr>
<tr>
<td>Muffler/Exhaust System</td>
<td></td>
</tr>
<tr>
<td>Engine Oil Level</td>
<td></td>
</tr>
<tr>
<td>Tracks or Tires</td>
<td></td>
</tr>
<tr>
<td>Parking Break</td>
<td></td>
</tr>
<tr>
<td>Hydraulic Fluid Levels</td>
<td></td>
</tr>
<tr>
<td>Wire Rope</td>
<td></td>
</tr>
<tr>
<td>Sheaves, Guards</td>
<td></td>
</tr>
<tr>
<td>Block, Ball, Hook</td>
<td></td>
</tr>
<tr>
<td>Wedge Socket</td>
<td></td>
</tr>
<tr>
<td>Rigging, Broken Wires, Damage</td>
<td></td>
</tr>
</tbody>
</table>
FIRE EXTINGUISHER TRAINING

Fire safety, at its most basic, is based upon the principle of keeping fuel sources and ignition sources separate.

Three things must be present at the same time to produce fire:

1. Enough Oxygen to sustain combustion
2. Enough Heat to reach ignition temperature
3. Some Fuel or combustible material

Together, they produce the chemical reaction that is fire. Take away any of these things and the fire will be extinguished.

FUEL CLASSIFICATIONS

Fires are classified according to the type of fuel that is burning. If you use the wrong type of extinguisher on the wrong class of fire, you might make matters worse. It is very important to understand the four different fire (fuel) classifications:

- **Class A**: Wood, paper, cloth, trash, plastics—solids that are not metals.
- **Class B**: Flammable liquids—gasoline, oil, grease, acetone. Includes flammable gases.
- **Class C**: Electrical—energized electrical equipment. As long as it is “plugged in.”
- **Class D**: Metals—potassium, sodium, aluminum, magnesium. Requires special extinguishing agents.
Most fire extinguishers will have a pictograph label telling you which types of fire the extinguisher is designed to fight.

For example, a simple water extinguisher might have a label like this, which means it should only be used on Class A fires.

**TYPES OF FIRE EXTINGUISHERS**

Different types of fire extinguishers are designed to fight different classes of fire. The three most common types of fire extinguishers are:

1. **Water (APW)**

   Large, silver fire extinguishers that stand about 2 feet tall and weigh about 25 pounds when full.

   APW stands for “Air-Pressurized Water.”

   Filled with ordinary tap water and pressurized air, they are essentially large squirt guns.

   APW’s extinguish fire by taking away the “Heat” element of the Fire Triangle.

   APW’s are designed for Class A fires **only**: Wood, paper, cloth. Here are a couple of reasons you need to be careful about which extinguisher you use:

   - Using water on a flammable liquid fire could cause the fire to spread.
   - Using water on an electrical fire increases the risk of electrocution. If you have no choice but to use an APW on an electrical fire, make sure the electrical equipment is unplugged or de-energized.

   APW’s will be found in older buildings, particularly in public hallways, as well as in residence halls on campus. They will also be found in computer laboratories. It is important to remember, however, that computer equipment must be disconnected from its electrical source before using a water extinguisher on it.
2. Carbon Dioxide (CO₂)

CO₂ cylinders are red. They range in size from 5 pounds to 100 pounds or larger. On larger sizes, the horn will be at the end of a long, flexible hose.

The pressure in a CO₂ extinguisher is so great, bits of dry ice might shoot out of the horn!

CO₂’s are designed for Class B and C (flammable liquids and electrical sources) fires only!

CO₂’s will frequently be found in laboratories, mechanical rooms, kitchens, and flammable liquid storage areas.

In accordance with NFPA regulations (and manufacturers’ recommendations) all CO₂ extinguishers at OSU undergo hydrostatic testing and recharge every five years.

Carbon dioxide is a non-flammable gas that takes away the oxygen element of the Fire Triangle. CO₂ is very cold as it comes out of the extinguisher, so it cools the fuel as well.

A CO₂ may not be very effective in extinguishing a Class A fire because it may not be able to displace enough oxygen to successfully put the fire out. Class A materials may also smolder and re-ignite.
3. **Dry Chemical (ABC, BC, DC)**

ABC extinguishers are red. On campus, they range in size from five pounds to 20 pounds.

On the OSU campus, ABC extinguishers are filled with a fine, yellow powder. This powder is mostly composed of monoammonium phosphate. The extinguishers are pressurized with nitrogen.

Dry chemical extinguishers put out fire by coating the fuel with a thin layer of dust. This separates the fuel from the oxygen in the air. The powder also works to interrupt the chemical reaction of fire. These extinguishers are very effective at putting out fire.

Dry chemical extinguishers come in a variety of types. You may see them labeled:

- DC (for dry chemical)
- ABC (can be used on Class A, B, or C fires)
- BC (designed for use on Class B and C fires)

It is extremely important to identify which types of dry chemical fire extinguishers are located in your area!

An “ABC” extinguisher will have a label like this, indicating it may be used on Class A, B, and C fires.

You don’t want to mistakenly use a “BC” extinguisher on a Class A fire thinking that it was an “ABC” extinguisher.

Dry chemical extinguishers with powder designed for Class B and C fires (“BC” extinguishers) may be located in places such as commercial kitchens and areas with flammable liquids.

On campus you will find ABC’s in public hallways of new buildings, in laboratories, break rooms, offices, chemical storage areas, mechanical rooms, University vehicles, etc.

**HOW TO USE A FIRE EXTINGUISHER**

It is easy to remember how to use a fire extinguisher if you remember the acronym, “PASS.”

*Sample Safety Program Elements for Structural Steel Fabrications*
**RULES FOR FIGHTING FIRES**

Pull

Aim

Squeeze

Sweep

Pull the pin
This will allow you to discharge the extinguisher.

Aim at the base of the fire
Hit the fuel...if you aim at the flames, the extinguishing agent will pass right through and do no good.

Squeeze the top handle
This depresses a button that releases the pressurized extinguishing agent.

Sweep from side-to-side until the fire is completely out.
Start using the extinguisher from a safe distance away and then slowly move forward. Once the fire is out, keep an eye on the area in case it re-ignites.

**Sample Safety Program Elements for Structural Steel Fabrications**
Fires can be very dangerous and you should always be certain that you will not endanger yourself or others when attempting to put out a fire. For this reason, when a fire is discovered,

1. Assist any person in immediate danger to safety, if it can be accomplished without risk to yourself.

2. Call 911 or activate the building fire alarm. The fire alarm will notify the fire department as well as other building occupants and shut off the air handling system to prevent the spread of smoke.

If the fire is small (and Only after having done these two things), you may attempt to use an extinguisher to put it out.

However, before deciding to fight the fire, keep these things in mind:

- **Know what is burning.** If you don’t know what is burning, you won’t know what kind of extinguisher to use.

- Even if you have an ABC fire extinguisher, there might be something in the fire that is going to explode or produce toxic fumes.

  Chances are you will know what is burning, or at least have a pretty good idea, but if you don’t, let the fire department handle it.

- Is the fire spreading rapidly beyond the point where it started? The time to use an extinguisher is at the beginning stages of the fire.

- If the fire is already spreading quickly, it is best to simply evacuate the building.

As you evacuate a building, close doors and windows behind you as you leave.

This will help to slow the spread of smoke and fire.
Do not fight the fire if:

- You don’t have adequate or appropriate equipment.
  If you don’t have the correct type or large enough extinguisher, it is best not to try fighting the fire.

- You might inhale toxic smoke.
  When synthetic materials such as the nylon in carpeting or foam padding in a sofa burn, they can produce hydrogen cyanide, acrolein, and ammonia in addition to carbon monoxide. These gases can be fatal in very small amounts.

- Your instincts tell you not to.
  If you are uncomfortable with the situation for any reason, just let the fire department do their job.

The final rule is to always position yourself with an exit or means of escape at your back before you attempt to use an extinguisher to put out a fire.

In case the extinguisher malfunctions, or something unexpected happens, you need to be able to get out quickly. You don’t want to become trapped.
FIRE EXTINGUISHER TRAINING QUIZ

1. An example of two “Class B” fuels would be:
   a. Cardboard, newspapers
   b. Lamp, hot plate
   c. Grease, paint thinner

2. An APW (water extinguisher) is safe to use on an electrical fire.
   a. True
   b. False

3. Carbon Dioxide extinguishers are designed for which types of fuels?
   a. Class B and C
   b. Class A, B and C
   c. Class A and C
   d. Class A and B

4. Which type of extinguisher has a hard horn on the end of a flexible hose or metal arm?
   a. APW (air-pressurized water)
   b. CO₂ (carbon dioxide)
   c. ABC (dry chemical)

5. As a general rule, you should not attempt to fight a fire if it is spreading rapidly.
   a. True
   b. False

6. ABC fire extinguishers extinguish fire by cooling it down.
   a. True
   b. False

7. Water will not extinguish most flammable liquid fires.
   a. True
   b. False

8. You should always keep an exit or means of escape at your back when trying to fight a fire.
   a. True
   b. False

9. The three elements of the fire triangle are:
   a. Water, a heat source, and fuel
   b. Oxygen, water, and fuel
   c. Oxygen, fuel, and a heat source
   d. Fuel, oxygen, and earth

10. Do you know where the nearest fire extinguisher is in your work area?
    a. Yes
    b. No
Appendix: Useful Forms

Answers

1. C
2. B
3. A
4. B
5. A
6. B
7. A
8. A
9. C
10. A
QUALITIVE FIT TESTING

Date of test: ___________________________  TM ID #: ___________________________

Team member/employee name: ___________________________________________________

Occupation: ___________________________________________________________________

Project: _______________________________________________________________________

<table>
<thead>
<tr>
<th>Respirator:</th>
<th>Size</th>
<th>Make</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half mask w/ cartridges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full face respirator (all styles)</td>
<td></td>
<td>MSA</td>
<td>Optimair-6A-Ultravue</td>
</tr>
<tr>
<td>PAPR</td>
<td></td>
<td>MSA</td>
<td>PremAir-Ultravue</td>
</tr>
<tr>
<td>Supplied air</td>
<td></td>
<td>MSA</td>
<td>UltraTwin</td>
</tr>
<tr>
<td>Full face cartridge</td>
<td></td>
<td>MSA</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Limitations:  □ Beard □ Denture □ Glasses □ None □ Other

Explain/comments: ________________________________________________________________

☐ Satisfactory positive pressure test  ☐ Satisfactory isoamyl acetate test
☐ Satisfactory irritant smoke         ☐ Satisfactory negative pressure test
☐ Satisfactory sweetener test         ☐ Unsatisfactory

Comfort:  □ Comfortable □ Barely comfortable □ Uncomfortable □ Intolerable

Team member statement: I understand that my use of this respirator must be in accordance with company work rules, manufacturer's instructions and applicable OSHA regulations and standards. I also understand what size and models I am allowed to wear. For full face MSA respirators, refer to table 1 in the Respiratory Protection Program Safety Policy and Procedure.

Team member/employee signature _____________________________________________ Date ___________

Tester's signature ___________________________________________________________ Date ___________
# Appendix: Useful Forms

## Sample Safety Program Elements for Structural Steel Fabrications

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### Energized Work Permit

**Note:** to be completed and authorized by qualified electrical personnel.

**Evaluation**

1. Location
2. Planned work dates
3. Task description and justification for this work to be done in an energized state
4. Requested by ___________________________ ID#: ___________________________ Date: ___________________________
5. Has the Risk Assessment been performed by qualified workers? Y □ N □ Is the Activity Plan complete? Y □ N □
6. Procedure to be used in performing the energized work:

| Shock risk assessment results: Voltage exposure level_planned | PPE & other equipment | Approach boundaries (TABLE 130.4(D) a or b): Limited - _____ ft. _____ in. Restricted - _____ ft. _____ in. |
| Arc flash risk assessment results: Available incident energy @ working distance (cal/cm²) or PPE category per equipment label or Table 130.7(C) |
| Arc flash boundary per equipment label or Table 130.7(C)(15)-(a)(b)or(C): _____ ft. _____ in. |

7. Means used to restrict access by unqualified persons:

8. Can the described work be done safely? Y □ N □ if no, return to requester

9. **Assigned worker signatures (must be approved by the Electrical Advisory Committee)**
   - Name ___________________________ ID #: ___________________________ Date ___________________________
   - Name ___________________________ ID #: ___________________________ Date ___________________________
   - Name ___________________________ ID #: ___________________________ Date ___________________________

10. **Authorization Signatures**
    - Front Line Supervisor ___________________________ ID #: ___________________________ Date ___________________________
    - Project Superintendent ___________________________ ID #: ___________________________ Date ___________________________
    - Safety Specialist ___________________________ ID #: ___________________________ Date ___________________________
    - Client Review ___________________________ Title ___________________________ Date ___________________________

11. Request approved? Y □ N □ Date ___________________________

12. Comments:
STATUTORY FABRICATOR ERECTION REQUIREMENTS

Purpose

OSHA 1026 Subpart R – Steel Erection has a few requirements that are necessary for fabricators to provide in while fabricating structural steel. All of these were instituted to enhance safety during steel erection. The following is a list of the excerpts from OSHA 1926 Subpart R – Steel Erection that apply to steel fabrication.

1) CFR 1926.756(c)(1) – When two structural members on opposite sides of a column web, or a beam web over a column, are connected sharing common connection holes, at least one bolt with its wrench-tight nut shall remain connected to the first member unless a shop-attached or field-attached seat or equivalent connection device is supplied with the member to secure the first member and prevent the column from being displaced (See Appendix H to this subpart for examples of equivalent connection devices).

2) CFR 1926.756(c)(2) – If a seat or equivalent device is used, the seat (or device) shall be designed to support the load during the double connection process. It shall be adequately bolted or welded to both a supporting member and the first member before the nuts on the shared bolts are removed to make the double connection.

3) CFR 1926 756(d) Column splices. Each column splice shall be designed to resist a minimum eccentric gravity load of 300 pounds (136.2 kg) located 18 inches (.46 m) from the extreme outer face of the column in each direction at the top of the column shaft.

4) CFR 1926.756(e)(1) – Perimeter columns shall not be erected unless the perimeter columns extend a minimum of 48 inches (1.2 m) above the finished floor to permit installation of perimeter safety cables prior to erection of the next tier, except where constructability does not allow.

5) CFR 1926.756(e)(2) – The perimeter columns have holes or other devices in or attached to perimeter columns at 42 – 45 inches (107 – 114 cm) above the finished floor and the midpoint between the finished floor and the top cable to permit installation of perimeter safety cables required by 1926.760(a)(2) except where constructability does not allow.

6) CFR 1926.754(c)(1)(i) – Shear connectors (such as headed steel studs, steel bars or steel lugs), reinforcing bars, deformed anchors or threaded studs shall not be attached to the top flanges of beams, joists or beam attachments so that they project vertically from or horizontally across the top flange of the member until after the metal decking, or other walking/working surface, has been installed.

7) CFR 1926.755(a)(1) - All columns shall be anchored by a minimum of 4 anchor rods (anchor bolts)

8) CFR 1926.755(a)(2) – Each column anchor rod assembly, including the column to base plate weld and the column foundation, shall be designed to resist a minimum eccentric gravity load of 300 pounds located at 18 inches from the extreme outer face of the column in each direction at the top of the column shaft. (Design for ASCE 37 construction loads if they are larger)

9) CFR 1926.757(a)(1) Except as provided in paragraph (a)(2) of this section, where steel joists are used and columns are not framed in at least two directions with solid web structural steel members, a steel joist shall be field-bolted at the column to provide lateral stability to the column during erection.
10) CFR 1926.757(a)(1)(i) A vertical stabilizer plate shall be provided on each column for steel joists. The plate shall be a minimum of 6 inch by 6 inch (152 mm by 152 mm) and shall extend at least 3 inches (76 mm) below the bottom chord of the joist with a 13/16 inch (21 mm) hole to provide an attachment point for guying or plumbing cables.

Appendix H to Subpart R -- Double Connections: Illustration of a Clipped End Connection and a Staggered Connection: Non-Mandatory Guidelines for Complying with §1926.756(c)(1).

Clipped end connections are connection material on the end of a structural member which has a notch at the bottom and/or top to allow the bolt(s) of the first member placed on the opposite side of the central member to remain in place. The notch(es) fits around the nut or bolt head of the opposing member to allow the second member to be bolted up without removing the bolt(s) holding the first member.
Staggered connections are connection material on a structural member in which all of the bolt holes in the common member web are not shared by the two incoming members in the final connection. The extra hole in the column web allows the erector to maintain at least a one bolt connection at all times while making the double connection.