

# Scotia



## Community Services District

INJURY AND ILLNESS PREVENTION PROGRAM

FOR THE

SCOTIA COMMUNITY SERVICES DISTRICT

ADOPTED

AUGUST 20, 2015

**SCOTIA COMMUNITY SERVICES DISTRICT  
INJURY & ILLNESS PREVENTION PROGRAM**

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## **1.0 PURPOSE**

- A. The Injury and Illness Prevention Program (“IIPP”) is one of the eight part safety program for the State of California. Every California employer is required and must establish, implement and maintain a written IIPP, and a copy must be maintained at the main office and each department office for the Scotia Community Services District (“SCSD” or “District”). The requirements for establishing, implementing and maintaining an effective written IIPP are contained in Title 8 of the California Code of Regulations, Section 3203.
- B. There are a variety of different exposures to the employees at the SCSD, and these exposures present safety and health risks, which require proper training and following the safety rules to prevent injuries from occurring. This IIPP established the best practices for training and injury prevention at SCSD.
  - 1. Safety Program Goals:
    - a. The safety program of SCSD is intended to:
      - (1) Reduce the potential for human suffering as a result of an occupational accident or disease in the workplace.
      - (2) Eliminate or control conditions that pose a threat to employee safety.
      - (3) Control unsafe acts by employees through education and supervision.
      - (4) Seek and appreciate employees’ communication of safety improvements in the workplace environment, processes, machinery and procedures.
      - (5) Investigate all workplace accidents and provide corrective actions if possible.
      - (6) Return the employee to work as soon as possible after an occupational injury or disease.
      - (7) Reinforce management support for ongoing safety activities.
      - (8) Audit and revise safety program to meet changing circumstances, processes and machinery.
      - (9) Meet the laws and regulations pertaining to employee safety.
  - 2. Responsibilities
    - a. General Manager
      - (1) Ensure managers and supervisors have all the financial, educational and administrative assets necessary to implement an effective District safety program.
      - (2) Provide the authority and ensure accountability to managers or supervisors for District safety activities.
      - (3) Ensure all laws and regulations followed as required by authorities having jurisdiction.

b. Managers/Supervisors

- (1) Ensure employees are aware of their job duties, safe work procedures and hazard recognition and mitigation.
- (2) Ensure employees are following safe work procedures.
- (3) Investigate and report all accidents to appropriate personnel.
- (4) Maintain good communication with employees by encouraging safety improvement suggestions and safety committee participation.
- (5) Communicate to management resources needed to improve workplace conditions.

c. All Employees

- (1) Follow safe work procedures including maintaining good housekeeping and use of required personal protective equipment (“PPE”).
- (2) Report all unsafe action or conditions witnessed at the workplace.
- (3) Report all accidents immediately to manager or supervisor.
- (4) Participate in safety programs and committees as requested.

## 2.0 SCOPE

- A. The requirements of the IIPP apply to all SCSD employees.

## 3.0 DEFINITIONS

- A. **IIPP Administrator:** the General Manager acts as the IIPP Administrator and has the authority and responsibility for implementing and maintaining this IIPP for the SCSD. A copy of this IIPP is available at the District Office, and from the General Manager.
- B. **Hazards:** conditions or activities that have the potential to produce adverse or harmful consequences such as injury or illness. Hazards include, but are not limited to: electricity, chemicals, and working in an elevated area.
- C. **Unsafe conditions or unsafe acts:** conditions or acts that have the potential to produce adverse or harmful consequences such as injury or illness. Unsafe conditions must be reported.
- D. **Immediately Dangerous to Life and Health (“IDLH”):** conditions are any situation where a person is exposed to a hazard that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual’s ability to escape from the hazardous situation and must be reported.

- E. **Imminent hazard:** a situation where immediate action must be taken to ensure that people are not exposed to a hazard capable of causing death, major injuries or irreversible adverse health effects.
- F. **Safety Officer:** The Safety Officer shall be the General Manager or specified designee, and has the authority and responsibility for implementing and maintaining this IIPP for the SCSD.

#### **4.0 RESPONSIBILITIES**

- A. For the purpose of the IIPP, the General Manager has the authority and responsibility for implementing the IIPP, as the program administrator. All managers and supervisors are responsible for implementing and maintaining the IIPP in their work areas and for answering any employee questions about the IIPP.
- B. **GENERAL MANAGER** has the following responsibilities:
  - 1. Ensuring the IIPP is in place,
  - 2. Communicating any regulation changes to affected managers and supervisors,
  - 3. Conducting an annual review of the IIPP,
  - 4. Maintaining the Training Program, and
  - 5. When requested, providing assistance to the managers and supervisors in implementing the IIPP.
- C. **SAFETY OFFICER** has the following responsibilities:
  - 1. Understanding the applicability of the IIPP to the employees in their workplace,
  - 2. Establishing a system for hazard identification, reporting and control within their facility,
  - 3. Establishing a system for ensuring that all employees complete **all** safety training on schedule with required documentation,
  - 4. Establishing a system to ensure that employees are trained to be aware of all of the hazards associated with their work and in the areas where they work,
  - 5. Establishing and implementing safe work practices,
  - 6. Establishing a system for the investigation and reporting of any work related injury and illness, including corrective actions taken to minimize the possibility of future injuries or illnesses from the same cause,
  - 7. Establishing a system for evaluation of new potential hazards from the introduction of new materials, equipment, processes or other activities into the workplace,
  - 8. Establishing a system for ensuring that employees follow the requirements of the IIPP, applicable safe work practices, reporting unsafe acts or conditions and all other safety requirements. The system is to include rewards who demonstrate safe work practices and disciplinary actions to employees who fail to comply with safe and healthful work practices, and

9. Establishing a system for communicating safety information to the employees at each facility location or District department.

D. **SUPERVISORS** have the following responsibilities:

1. Understanding the applicability of the IIPP to the employees that they supervise,
2. Establishing a system for conducting periodic inspections of the area and activities that they supervise for the purpose of identifying hazards, unsafe conditions and/or unsafe acts,
3. Using techniques such as job hazard analyses to identify and evaluate hazards and develop methods for reducing the potential for injuries and/or illnesses from the hazards,
4. Ensuring that all employees under their supervision complete safety training on schedule and ensuring that the training is documented, with sign-in sheets or another form of documentation,
5. Ensuring that all employees under their supervision are trained in hazard recognition, safe work practices and use of PPE, if applicable, before they begin work in an area where hazards are present,
6. Requiring that all employees under their supervision are aware of the requirement that **all** work related injuries or illnesses must be reported to the manager/supervisor,
7. Conducting investigations of all work related injuries and illnesses in their workplace, developing and implementing corrective actions, creating and maintaining documentation, and contacting General Manager if necessary,
8. Evaluating all new materials, processes, equipment and activities introduced into their workplace for potential new hazards and providing safety training to their employees **prior** to allowing employees to work with any source of a new hazard,
9. Conducting on-going observations of employee behavior to identify exemplary safe work practices and unsafe work practices,
10. Providing rewards for outstanding safe work practices and disciplinary action for unsafe work practices, and
11. Communicating safety information to the employees they supervise through periodic safety meetings.

E. **EMPLOYEES** have the following responsibilities:

1. Being aware of and complying with the all of the established safe work practices for their work area and job duties,
2. Immediately reporting any imminent hazards, unsafe conditions or unsafe actions to their supervisor,
3. Reporting to their supervisor any changes to materials, equipment, processes or activities, that might introduce potential new hazards into their work environment,

4. Prior to engaging in any work related activity where they are unsure of the safety requirements, contacting their supervisor for training in safe work practices for the activity,
5. Maintaining their work areas in a clean, neat and orderly condition which is conducive to their own health and safety and the health and safety of their co-employees,
6. Completing their training at a frequency established by the manager/supervisor until all courses are completed, and
7. Reporting any new workplace hazards to their supervisor as soon as they become aware of the new hazard.

## **5.0 COMPLIANCE**

- A. Management is responsible for ensuring that all safety and health policies and procedures are clearly communicated and understood by all employees. Managers and supervisors are expected to enforce the rules fairly and uniformly.
- B. All employees are responsible for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe work environment.
- C. The system of ensuring that all employees comply with the rules and maintain a safe work environment includes:
  1. Informing employees of the provisions of the IIPP;
  2. Evaluating the safety performance of all employees;
  3. Recognizing employees who perform safe and healthful work practices;
  4. Providing training to employees whose safety performance is deficient;
  5. Disciplining employees for failure to comply with safe and healthful work practices, or who violate safety rules and safe work practices or who create unsafe conditions or commit unsafe acts are subject to disciplinary action up to and including termination.

## **6.0 COMMUNICATION**

Communication between management and staff on health and safety issues is essential to an injury-free, productive workplace. The system of communication consists of one or more of the following items:

1. New employee orientation including a discussion of safety and health policies and procedures.
2. Review of the IIPP.
3. Workplace safety and health training programs.
4. Regularly scheduled safety meetings.
5. Effective communication of safety and health concerns between employees and supervisors, including translation where appropriate.
6. Posted or distributed safety information.

7. A drop box for employees to anonymously inform management about workplace hazards.

## **7.0 HAZARD ASSESSMENT**

### **A. Periodic Inspections**

1. Periodic inspections to identify and evaluate workplace hazards shall be performed by the Safety Officer.
2. Periodic inspections consist of identification and evaluation of workplace hazards utilizing applicable sections of the attached Hazard Assessment Checklist (Form 5) and any other effective methods to identify and evaluate workplace hazards (Hazard identification, Hazard evaluation, Responding to imminent or IDLH hazards, Control and mitigation of non-IDLH/imminent hazards).
3. Periodic inspections are performed by the Safety Officer:
  - a. Monthly;
  - b. When initially establishing the IIPP;
  - c. When new substances, processes, procedures or equipment which present potential new hazards are introduced into the workplace;
  - d. When new, previously unidentified hazards are recognized;
  - e. When occupational injuries and illnesses occur;
  - f. When we hire and/or reassign permanent or intermittent employees to processes, operations, or tasks for which a hazard evaluation has not been previously conducted;
  - g. Whenever workplace conditions warrant an inspection.

### **B. Hazard Identification**

1. Safety Inspections
  - a. The Safety Officer is to establish a safety inspection program within their facility.
  - b. Safety inspections are to follow the Safety Inspection Procedure (Appendix A). Every safety inspection is to be documented by completing the appropriate Safety Inspection Checklist (Form 1) for the type of operation being inspected. A copy of the completed checklist is to be sent to the Safety Officer.
  - c. Safety inspections are to be conducted quarterly.
  - d. Each facility or department conducting safety inspections is to review the results during the next safety meeting.
2. Employee Reports
  - a. Any employee observing an imminent hazard is to immediately inform employees in the area about the hazard, and advise them to move to safe area and then inform the Safety Officer of where the hazard was observed.

- b. Any employee observing unsafe conditions or unsafe acts is to immediately report the observation to the Safety Officer.

### C. Hazard Evaluations

1. Determination if the hazard is Immediately Dangerous to Life and Health IDLH or imminent
  - a. The hazard evaluation process determines if the hazard is an IDLH environment or is an imminent hazard. Both of these situations require **immediate** action.
    - (1) When an employee encounters a situation that could be an IDLH situation, the employee is to take no actions that could expose them to the hazard and follow the procedures in Section D1 and D2
    - (2) When an employee encounters a situation where a hazard appears to be imminent, the employee is to take no actions that could cause any person, including themselves, to be exposed to the hazard and follow the procedures in Section D1 and D3
2. Hazards that are **not** IDLH or Imminent Hazards
  - a. Evaluation of a hazard is based on:
    - (1) The potential for the hazard to cause an injury or illness
    - (2) The potential severity of the injury or illness that could be caused by the hazard
  - b. Simple evaluation
    - (1) A visual inspection of the area, combined with knowledge of the activities that should occur in the area.
    - (2) The results of the evaluation must be documented and placed in the department safety file.
  - c. Formal evaluation
    - (1) A Job Hazard Analysis is required for evaluating material handling hazards. The Job Hazard Analysis Procedure is in Appendix B.
      - (a) Frequency for Conducting Job Hazard Analyses:
        - i. When new substances, processes, procedures or equipment are introduced into the area that represent a potential health or safety hazard;
        - ii. When requested by an employee at any facility;
        - iii. When the presence of a new or previously unrecognized potential hazard is identified.
        - iv. For every job where there is a potential exposure to a hazard.
      - (b) Prioritizing a Job Hazard Analysis. Priority must be given to the following jobs:

- i. Jobs with frequent accidents.
- ii. Jobs that have serious injury or harm, regardless of the frequency.
- iii. Jobs that have the potential for causing serious injury or harm.
- iv. Jobs that have changed procedure, equipment, or materials, and jobs whose operation may have been affected by new regulations or standards.

(c) Job Hazard Analysis Requirements:

- i. A Job Hazard Analysis must be completed once per month for each facility by Safety Officer until all jobs in a specific location have been analyzed. Job hazard analyses are not required for the office environment. An ergonomic assessment should be conducted on office jobs where repetitive tasks are performed for more than four hours per day.

(d) Job Hazard Analysis Training:

- i. Appendix B is a reference guide for conducting a Job Hazard Analysis.
- ii. The Safety Officer is responsible to ensure that Job Hazard Analysis training is provided to the appropriate employees.

D. Responding to imminent or IDLH hazards

1. Preventing injuries and/or illness from an IDLH or imminent hazard requires immediate action. If the hazard cannot be immediately abated without endangering people, then all people are to be moved to a safe area. Personnel remaining in the area to correct the hazardous situation must be provided with the necessary safeguards, including but not limited to PPE, the buddy system and supervision by a person knowledgeable of the hazards and proper control measures.
2. Any employee who becomes aware of a possible IDLH situation is to:
  - a. Tell the persons exposed to the IDLH environment to immediately move to a safe area, provided that this can be done without endangering themselves,
  - b. Contact the Safety Officer immediately to report the condition as an emergency.
  - c. Prevent people from entering the area.
3. Any employee who becomes aware of a potentially imminent hazard is to:
  - a. Inform persons in the area of the hazard.
  - b. Contact the Safety Officer to immediately report the imminent hazard as an emergency.
  - c. Prevent people from entering the area.

E. Control and mitigation of Non-IDLH/Imminent Hazards

1. Control and mitigation of multiple hazards

- a. Determine the severity of each hazard (potential for an injury and severity of the injury)
- b. Mitigation measures for hazards are based on the potential severity of the hazard.
2. It is the responsibility of the Safety Officer to evaluate hazard control measures, assess the effectiveness of the implementation and determine if they are adequate.
3. Hazard control measures are to be selected to provide the maximum practical protection for the specific hazard and work activities. Possible control measures are listed below:
  - a. Changes to processes
  - b. Changes to equipment
  - c. Changes to materials
  - d. New or revised work practices, procedures, instructions
  - e. Use of engineering controls
  - f. Use of PPE
  - g. Implementing the safe work practices in Appendix C
  - h. Training
4. Employees should contact the Safety Officer if they need assistance in selection of measures for controlling workplace hazards

## **8.0 ACCIDENT / EXPOSURE INVESTIGATION**

- A. Reporting occupational injuries or illnesses
  1. **All** occupational injuries and illnesses must be immediately reported to and documented by the Safety Officer.
  2. **All** employees must be trained to report all occupational injuries and illnesses to the Safety Officer.
- B. Investigating and documenting occupational injuries and illnesses
  1. The Safety Officer must conduct an investigation of all occupational injuries and illnesses and complete a report by following the procedure in Appendix D – Procedure for Conducting Injury and Illness Investigations and Preparing Reports. For **All** serious accidents, the General Manager must be contacted.
  2. Procedures for investigating workplace accidents and hazardous substance exposures include:
    - a. Visiting the accident scene as soon as possible;
    - b. Interviewing injured employees and witnesses;
    - c. Examining the workplace for factors associated with the accident/exposure;
    - d. Determining the cause of the accident/exposure;

- e. Taking corrective action to prevent the accident/exposure from reoccurring; and
- f. Recording the findings and corrective actions taken.

## **9.0 HAZARD CORRECTION**

Unsafe or unhealthy work conditions, practices or procedures shall be corrected in a timely manner based on the severity of the hazards. Hazards shall be corrected according to the following procedures:

- 1. When observed or discovered;
- 2. When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed employees from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided with the necessary protection; and
- 3. All such actions taken and dates they are completed shall be documented on the appropriate forms.

## **10.0 TRAINING and INSTRUCTION**

### **A. General Training Requirements**

- 1. All new employees receive basic safety training as part of the new employee orientation process. The following topics are discussed by the Safety Officer and documented in the **New Employee Checklist**.
- 2. All employees, shall have training and instruction on general and job-specific safety and health practices. Training and instruction shall be provided as follows:
  - a. Hazard Communication Program
  - b. IIPP
  - c. Fire Safety/Emergency Evacuation
  - d. The following Health and Safety programs as applicable:
    - (1) Ergonomics Program
    - (2) Forklift Safety/Training
    - (3) Hazard Communication
    - (4) Blood borne Pathogens Exposure Control Plan
    - (5) PPE
    - (6) Back Safety
    - (7) Lock Out/Block Out/Tag Out Training
    - (8) cardiopulmonary resuscitation (“CPR”)/First Aid Training
    - (9) Power Equipment Fueling and Battery Charging Training

- e. Current Policies and Procedures:
    - (1) Safety Requirements
    - (2) Reporting Occupational Injuries and Illnesses
    - (3) Accident Reporting
  - f. In addition to the topics listed above, each facility or department may have other safety related training for all new employees.
    - (1) Information about chemical hazards to which employees could be exposed and other hazard communication program information.
    - (2) Availability of toilet, hand-washing and drinking water facilities.
    - (3) Provisions for medical services and first aid including emergency procedures.
3. Responsibilities
- a. The Safety Officer is responsible for the following:
    - (1) The proper training is given to employees using the guide in Appendix E - Guide for Employee Safety Training Requirements;
    - (2) Training is provided on all the safe work practices that have been developed for the facility;
    - (3) Training is given to all new employees, including temporary employees;
    - (4) Training is given to all employees given new job assignments for which training has not been previously received;
    - (5) To ensure training is conducted whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard;
    - (6) To ensure training is conducted whenever the Safety Officer is made aware of a new or previously unrecognized hazard; and
    - (7) To ensure all employees complete the annual training requirements with proper documentation/recordkeeping.
  - b. Employees are responsible for:
    - (1) Contacting the Safety Officer if a change in their job responsibilities or location creates the potential for an exposure to a hazard where they have not had training.
    - (2) Contacting the Safety Officer if they do not understand any part of the safety training.

## B. Training

- 1. Classroom training demonstrations, hands-on training or other forms of training may be required for various job functions. It is the responsibility of the Safety Officer to be aware of these requirements and to ensure that employees in their facility receive this additional non-computer based training.

2. Specific locations-training is done at each site facility.
  - a. The Administrative Staff notifies the Safety Officer each time a new employee is hired at the SCSD.
  - b. When a current employee is transferred to a different site location where the safety training requirements could be different than for the previous job, the Safety Officer will review the new training requirements, including Fire Safety/Emergency Evacuation.
3. Responsibilities
  - a. Safety Officer
    - (1) It is the responsibility of each Safety Officer to complete the health and safety training for each employee in order to establish the health and safety training required.
    - (2) Failure to ensure that the programs are completed could result in disciplinary action.
  - b. Employees
    - (1) It is the responsibility of every employee to complete their assigned training when the classes are offered on specific dates. If training is not completed during this timeframe, an employee could be subject to disciplinary action.
    - (2) Employees are responsible for immediately reporting any problems, as to why any classes were not completed as assigned.

C. Other Health and Safety Training

1. Training required by the insurance provider.
2. Other training as required.

## **APPENDIX A – SAFETY INSPECTION PROCEDURE**

### **PURPOSE**

The purpose of this procedure is to define the scope, frequency and responsibilities for conducting periodic safety inspections.

The specific purposes of the safety inspections are to:

1. Determine if there are unsafe conditions or work practices,
2. Identify and evaluate hazards in the work place,
3. Determine compliance levels in an operation and
4. Ensure site compliance with applicable regulations.

### **SCOPE**

This procedure applies to all of the operations conducted at the SCSD.

### **RESPONSIBILITIES**

Supervisors are responsible for:

1. Either conducting periodic safety inspections or assigning the responsibility to an employee or group of employees within the facility,
2. Ensuring that safety issues identified during the inspections are resolved,
3. Periodically reviewing safety inspection checklists to ensure that inspections are conducted on schedule and that deficiencies are corrected in a timely manner.

### **SAFETY INSPECTION PROGRAM**

- A. Each facility or department is required to perform Monthly inspections and use the inspection checklist attached. The checklist is provided as Form 1 to this procedure:
  1. Form 1 – Safety Inspection Checklist
- B. In addition to the periodic safety inspections, a safety inspection is to be conducted when:
  1. New substances, processes, procedures, or equipment are introduced into the department that represents a new occupational health or safety hazard.
  2. The Supervisor is made aware of a new or previously unrecognized hazard.
- C. Employees designated by the Supervisor shall conduct unannounced inspections for all department areas that contain potential hazards to employees.
  1. All employees shall receive training by a qualified and competent person on the inspection process, or be trained by a currently qualified inspector at the facility.

2. Employees are to evaluate all applicable areas on the appropriate checklist and identify corrective actions. Corrective actions are to be assigned to a designated employee with a completion date.
  3. Completed safety inspection checklists, without verification of completion of corrective actions, are to be submitted to the Supervisor, the Safety Officer and any individual outside of the facility who has been assigned action or assistance items.
- D. Follow-up inspections are to be conducted by the completion date for the corrective actions to verify that corrective actions have been completed.
1. The supervisor is to close completed corrective actions by signing and dating the appropriate form (Corrective Action Detail, Assignment and Completion Sheet) on the line - Corrective Action Completed.
  2. Corrective actions not completed by the agreed to completion date and observed to not be complete at the time of the follow up inspection are to be investigated and a report drafted and submitted to the Supervisor for immediate action.
  3. Copies of the signed and dated Corrective Action Detail, Assignment and Completion Sheets are to be submitted to the Supervisor upon completion of all corrective actions from an inspection. A copy is also to be placed in the facility files.
  4. Copies of completed quarterly or annual assessment forms are to be retained in department files for a minimum of three (3) years.
- E. If during an inspection, an employee discovers either an IDLH situation or an imminent hazard during an inspection, which cannot be immediately abated without endangering employees, the employee will stop the inspection and have **all exposed** personnel removed from the area. The employee is to use sound judgment to determine if employees not exposed to the hazard should move from the area. Personnel remaining in the area to correct the hazardous situation must be provided with the necessary safeguards, including but not limited to PPE, the buddy system and supervision by a person knowledgeable of the hazards and proper control measures.
- F. Results and findings from quarterly or annual inspections shall be communicated to all relevant employees.

## **APPENDIX B - JOB HAZARD ANALYSIS PROCEDURE**

### **PURPOSE**

The purpose of this procedure is to provide instructions for performing a job hazard analysis.

### **SCOPE**

This procedure applies to all non-office operations where workplace hazards exist.

### **RESPONSIBILITIES**

Supervisors are responsible for:

1. Assigning the employees to conduct Job Hazard Analyses (“JHA”),
2. Ensuring that job hazard analyses are conducted in a timely manner, and
3. Ensuring that changes recommended to increase safety are implemented.

### **CONDUCTING JOB HAZARD ANALYSES**

A. A JHA is a method of studying a job in order to:

1. Identify the hazards or potential injuries associated with each step of the job, and
2. Develop solutions that will eliminate or control such hazards.

B. A Job Hazard Analysis is a three stage process:

1. List the basic steps necessary to perform the job from start to finish,
2. Identify every existing or potential hazard associated with each job step, and
3. Develop ways to eliminate the hazards and thus prevent the potential accidents.

C. Recommending corrective measures

1. Recommendations should be developed at the job site whenever possible. It is always best to work through possible solutions at the job site. This allows the employee to check the feasibility of changes as they are proposed, in order to avoid making recommendations that won't work or that may interfere with other jobs.
2. Recommendations should be developed in sequence, beginning with the first hazard. The employee should begin with the first job step and work their way down the list until recommendations have been made for each of the hazards listed in the second column of the form. Dealing with the hazards in sequence allows the team to study what effects their recommendations might have on subsequent steps.
3. Recommendations must be specific. A general statement such as "Wear PPE" is much too vague. The employee needs to make certain that each recommendation adequately explains what corrective measure is supposed to be carried out. For example, "Wear heavy butyl rubber gloves, and safety glasses with side shields," is a more effective recommendation.

4. As many solutions as possible should be listed.
  - a. It is essential that all of the precautions or corrective measure be listed-even those that may already be in place. Since JHAs often serve as the basis for developing standard operating procedures, or are used to deliver training, all of the precautions necessary to perform the job safety need to be included.

The most effective recommendations are those that eliminate hazards altogether. May times, however, that is not immediately possible and temporary measures must be recommended until a more permanent solution can be implemented. For example, it may be necessary to recommend the temporary use of respirators until an adequate ventilation system can be installed.

In most cases, effective recommendations for corrective measures can be developed by considering the same four factors used to identify hazards:

- (1) The **physical actions** necessary to perform the job,
  - (2) The **materials** used,
  - (3) The **equipment** used, and
  - (4) The **conditions** under which the job is performed.
- b. If the physical actions associated with a particular job step pose risks to the employee, it may be possible to eliminate the risks by modifying, rearranging, or combining actions.
  - c. If materials associated with a job present hazards, it may be possible to substitute a less hazardous material. If substitution is not possible, it may be necessary to recommend ways to control the employee's exposure to that material by suggesting the use of PPE or the installation of protective devices such as splash guards or shields.
  - d. When equipment hazards exist, recommendations for corrective measures can include the installation of machine guards, automatic safeguard devices, or perhaps even the replacement of a particular piece of equipment. Once again, recommending the use of PPE should also be considered.
  - e. The recommended corrective measures for changing work area conditions could include such things as: improved housekeeping procedures; installation of additional lighting, ventilation, or noise reduction systems; the use of PPE; or the relocation or redesign of the work area.

## **APPENDIX C – GENERAL SAFE WORK PRACTICES**

### **PURPOSE**

The purpose of this procedure is to define general safe work practices for operations at each facility or department location.

### **SCOPE**

This procedure applies to all employees, contractors or other persons engaged in the activities described in the procedure.

### **RESPONSIBILITIES**

**DEPARTMENT MANAGERS/SUPERVISORS** are responsible for:

1. Ensuring that all employees at their facility are aware of the required safe work practices.
2. Establishing a system to ensure that all employees at their facility follow the applicable safe work practices.
3. To ensure safe work practices are reviewed or updated.

### **SAFE WORK PRACTICES**

**Specific safe work practices are attached for the following areas:** District Office, Water Storage and Distribution Systems, Wastewater Collection Treatment and Disposal Systems, Storm Drainage, Parks and Recreation, Fire Services, Theatre and Museum, Maintenance Shops, Roadways, Landscaping, and Street Lighting.

### **GENERAL SAFE WORK PRACTICES FOR DISTRICT OFFICES**

#### **A. Floors**

1. Ensure there are no loose materials, debris, or worn carpeting
2. Ensure the floors are not slippery, oily or wet

#### **B. Stairways and Aisles**

1. Keep them clear and unblocked
2. Ensure stairways are well lit
3. Ensure handrails and handholds are in place
4. Ensure the aisles are marked and visible
5. Ensure the step risers and treads are not damaged

#### **C. Equipment**

1. Make sure guards, screens, and sound-dampening devices are in place and effective

2. Ensure the furniture is safe, including proper ergonomics
3. Ensure ladders are safe and well maintained
4. Ensure proper vehicle safety training is provided to all employees

**D. Emergency Equipment**

1. Ensure all fire control equipment is regularly tested and certified
2. Ensure fire control equipment is appropriate for the type of fire it must control
3. Ensure emergency lighting is in place and regularly tested
4. Ensure annual Fire Extinguisher Training is properly conducted with all employees.

**E. Building**

1. Check structures to ensure safety

**F. Air Handling System**

1. Ensure the system is free of sources of contamination (asbestos, microorganisms, dust, fumes)
2. Ensure humidity is within the standard range

**G. Hazardous Materials**

1. Ensure Hazardous Materials are properly labeled, and have a corresponding material Safety Data Sheet (“SDS”) for each product.

**H. Security**

1. Ensure entry and exit procedures provide employees personal security at night
2. Ensure emergency (evacuation, fire, bomb threat, hostile person) procedures are properly in place

**I. Material Storage**

1. Ensure materials are neatly and safely stored
2. Ensure there are stepladders to get to materials on higher shelves
3. Ensure that storage shelves are not overloaded
4. Ensure large and heavy objects are stored on lower shelves
5. Make sure passageways and work areas are clear of obstructions

**GENERAL SAFE WORK PRACTICES FOR WATER STORAGE AND DISTRIBUTION SYSTEMS**

- Ensure employees at water storage and distribution have proper footwear to prevent falls, slips, and trips on the different level of floors made wet and slippery during the handling of water
- Ensure ladders are inspected and not defective to prevent falls from heights while climbing and working on an elevated industrial installations

- Ensure employees inspecting the inside of an industrial installation and/or into water well have proper fall protection, and confined space entry
- Ensure employees are aware of the hazards of Hypochlorite and Aluminum Sulfate to prevent them inadvertently mixing to form chlorine gas
- Ensure employees have proper hearing protection where there is exposure to high levels of noise
- Ensure employees have proper PPE.
- Ensure no exposure to Chlorine (gas): a very strong oxidizer and disinfectant. It is a toxic and corrosive gas that causes irritation of the eyes and the respiratory tract even at low concentrations
- Ensure proper procedures to prevent direct contact with Sodium Hypochlorite: it is used as a solution. The substance is toxic and corrosive, in particular of the respiratory tract
- Ensure proper procedures to prevent direct contact to Calcium Hypochlorite: the substance is corrosive and very destructive of mucous tissues; may cause chemical pneumonia and lung edema
- Ensure proper traffic controls as needed to provide safety to employees when working in the yard areas or street locations, and with underground trenches with required orange safety cones, barricades, signs, flashers, flashing yellow arrows, and flag-persons directing traffic
- Ensure proper safety measures if a trench is to be excavated in accordance with Cal-OSHA requirements, to evaluate type of soil with appropriate safety devices to prevent cave-in on employees, and if excavation is in a street location, then proper traffic controls need to be in place for employee safety
- Ensure proper traffic controls as needed to provide safety to storm drain employees when working in street locations and in trenches.

**GENERAL SAFE WORK PRACTICES FOR WASTEWATER COLLECTION  
TREATMENT AND DISPOSAL SYSTEMS**

- Ensure employees working at sewage and wastewater plants, during construction and maintenance may have exposure to drowning, trench collapses, falls, confined spaces, and chlorine or hydrogen sulfide gas, and proper safeguards need to be in place
- Ensure employees at sewage and wastewater are properly trained with PPE to exposures of bacteria, fungi, parasites, and viruses that can cause intestinal, lung, and other infections
- Ensure proper training to employees at sewage and wastewater facilities, regarding treatment, transport, or application of sewage sludge.
- Ensure employees at sewage and wastewater facilities are properly trained in the prevention of direct contact with biological hazards.
- Ensure employees at sewage and wastewater facilities are properly trained and protected from harmful bacteria in sewage or wastewater.

- Ensure proper safety protection by wearing waterproof gloves when you handle wastewater, sludge, or grit.
- Ensure proper safety by learning and using safe lifting and moving techniques for heavy or awkward loads.
- Ensure proper safety training for employees using specific equipment.
- Ensure proper traffic controls as needed to provide safety to storm drain employees when working in street locations and in trenches.

### **GENERAL SAFE WORK PRACTICES FOR STORM DRAINAGE**

- Ensure proper safety training for employees in storm drainage repair and construction using specific equipment.
- Ensure proper training for Underground Service Alert (“USA”).
- Ensure proper training for confined space entry.
- Ensure safety for employees scheduled to work in trenches in accordance with Cal-OSHA requirements.
- Ensure proper lifting and handling techniques when loading and unloading storm drains.
- Ensure proper traffic controls as needed to provide safety to storm drain employees when working in street locations and in trenches.
- Ensure proper safety measures for trench excavation in accordance with Cal-OSHA requirements.

### **GENERAL SAFE WORK PRACTICES FOR PARKS AND RECREATION**

- Ensure proper training with equipment used in the Parks and Recreation maintenance areas.
- Ensure proper training in noise protection, PPE, respiratory protection, hazardous materials, and chemical waste.
- Ensure proper training with equipment used in the Parks and Recreation facilities.
- Ensure proper training with employees of the dangers of falling branches from trees.
- Ensure proper training with employees repairing and maintaining of underground water lines.
- Ensure proper training with traffic controls as needed to provide safety to the park and recreation employees when working in or to adjacent street locations.

### **GENERAL SAFE WORK PRACTICE FOR THEATRE AND MUSEUM OPERATIONS**

- Ensure proper training on emergency response procedures with all employees so they know exactly what to do in the event of a building fire, earthquake, and disruptive person(s).
- Check each exit door of the theatre and museum when in operation, to ensure they open properly and are not blocked or locked in any manner.

- Ensure proper training of employees regarding emergency evacuation.

### **GENERAL SAFE WORK PRACTICES FOR MAINTENANCE SHOPS**

- Ensure proper training so that employees know the hazards associated with their work.
- Ensure proper training to ensure employees always wear appropriate safety gear and protective clothing.
- Ensure proper training so that employees wear gloves required.
- Ensure proper training to ensure that there is adequate ventilation to prevent exposure from harmful fumes.
- Ensure proper training to maintain good housekeeping standards.
- Ensure proper training by making sure all tools and equipment are properly grounded and that cords are in good condition.
- Ensure proper training by securing all pressure cylinders and tanks.
- Ensure proper training for all cutting and welding equipment.
- Ensure proper training by wearing safety glasses.
- Ensure proper training by not using iron or steel hand tools that may cause sparks around flammable substances.
- Ensure proper training for lockout/tagout.

### **GENERAL SAFE WORK PRACTICES FOR ROADS, STREETS, AND STREETLIGHTING**

#### **A. Roadway Employee Safety**

1. Ensure proper training for roadway traffic control per the Manual on Uniform Traffic Control Devices.
2. Ensure vehicles used by roadway employees are equipped with back-up alarms.
3. Ensure proper safety as each employee should have a designated back-up person or spotter to signal when it is safe for operators to back equipment into work areas.
4. Ensure proper safety by provide training for employees on recognizing where blind spots exist for different types of equipment for roadway employees.
5. Ensure proper safety to make employees aware where heavy machinery is operating and stay in clear view of operation for roadway employees.
6. Ensure proper safety through instruction to know where blind spots exist for different types of equipment for roadway employees.
7. Ensure proper safety through policy to never use a cell phone when working around heavy machinery for employees.

8. Ensure good housekeeping, fire prevention, and safe practices for operating any construction equipment.
9. Ensure safe procedures for cleaning, repairing, servicing and adjusting equipment and machinery.

**B. Streetlights Employee Safety**

1. Ensure the streetlighting employees conduct a thorough inspection of the work area.
2. Ensure proper employee safety training for street lighting repair and maintenance.
3. Ensure proper employee training for ladders and elevated work platforms.

## **APPENDIX D – PROCEDURE FOR CONDUCTING INJURY AND ILLNESS INVESTIGATIONS AND PREPARING REPORTS**

### **PURPOSE**

The purpose of this procedure is to define the requirements and responsibilities for conducting investigations of occupational employee injuries and illnesses and for completion of reports:

- A. Provides a method for employees to report occupational injuries and illnesses promptly.
- B. Provides a method for conducting accident investigations and to reduce or eliminate future occurrences.

### **SCOPE**

This procedure applies to all occupational injuries and illnesses for SCSD employees.

### **RESPONSIBILITIES**

**SAFETY OFFICER** is responsible for:

- A. Training the employees on how to report work-related injuries and illnesses in accordance with the established procedure.
- B. Making the proper notifications regarding an occupational injury/illness to an employee as specified by Cal-OSHA, SCSD insurance carrier, and by established procedure.
- C. Conducting and thoroughly documenting an accident investigation of occupational injuries and/or illnesses to employees, as required by local and state law, Cal-OSHA, and SCSD insurance requirements.

**EMPLOYEES** are responsible for the following:

- A. Reading the IIPP.
- B. Reporting all work-related injuries/illnesses.
- C. Complying with all required reporting procedures and forms.
- D. Participating in the injury/illness investigation and offering recommendations for corrective action.
- E. Complying with implemented corrective actions.

### **OCCUPATIONAL INJURY AND ILLNESS INVESTIGATIONS AND REPORTS**

- A. Reporting occupational injuries and illnesses
  - 1. Employees are to report **all** occupational injuries or illnesses to the Safety Officer. If the Safety Officer is not available, the employee is to report to the General Manager.
  - 2. The Safety Officer will evaluate the occupational injury or illness and determine if the severity of the injury or illness justifies conducting an investigation and writing a report. If the Safety Officer is unsure, they are to contact the General Manager.

3. An Injury/Illness Investigation Report (See Form 3 for acute injuries) must be completed by the Safety Officer and submitted to the General Manager. **The report must be submitted within 24 hours (excluding weekends) of the time that the injury is reported.**

B. Investigating work related injuries and illnesses

1. Purposes of the investigation

- a. The primary purpose of the investigation is to determine if changes can be made to eliminate or reduce the possibility of future incidents. The investigation must be conducted to meet the requirements of CCR, Title 8.

2. The investigation process

- a. Interview - The interview phase serves to gather data on the circumstances and perceived causes of the incident. The person(s) interviewed should be asked open-ended questions, regarding the facts of the incident. Ask questions specific to **why, when, where, and what** actually happened to cause the injury or illness. Conclusions should be based on verifiable facts pertaining to the incident.

(1) Employees to be interviewed.

- (a) The injured employee is the first person who should be interviewed and may be the only person interviewed.
- (b) Any employees who were direct witnesses or in close proximity to the person at the time of the incident should be interviewed. Any witnesses or individuals capable of supplying direct information should be contacted and interviewed.
- b. Inspection - An inspection of tools, equipment, workstations, and a review of documentation or claims of statements made by others, should be completed.
- c. Analysis - All statements and physical (visually obtained) data should be used to determine what actually occurred.
- d. Summarization - The Injury/Illness Investigation Report is a summation of interviews, inspections, research and observations. Attach any notes or documentation supporting any observations to the report. Do not include conclusions in the report. Where established safety rules were clearly violated and disciplinary action taken, it should be clearly noted on the report.

## **Industrial Injury**

Correction and Implementation - Investigations often indicate that the incident was due to one or both of two circumstances, unsafe acts or unsafe conditions. The second circumstance is usually the result of the first circumstance occurring. Corrective measures should involve training the employee on safe work practice. If the employee is a habitual offender, it may be necessary to institute disciplinary action. Providing PPE with instruction on proper use and workstation/tooling modifications may be required. Physical conditions contributing to work place injuries or illnesses should be addressed. The safety inspection checklists for this procedure are used to determine the safety of the work area physical conditions.

**APPENDIX E - GUIDE FOR EMPLOYEE SAFETY TRAINING REQUIREMENTS**

<b>JOB FUNCTION</b>	<b>REQUIRED TRAINING</b>
All employees	Emergency Response and Evacuation Training
All employees	Fire Safety Training
All employees	Ergonomic Training
All employees	IIPP Training; Procedure
All employees	CPR/First Aid Training
Use, handling or storage of chemicals, reagents or hazardous materials	Hazard Communication Program Training; Procedure
Employees who use PPE	Training on the use and maintenance of PPE
Employees who work on machines or equipment where unexpected operation or movement could cause an injury	Cal-OSHA Lock Out/Block Out/Tag Out Training; Procedure
Responding to spills or leaks from products containing human blood or fluids	Exposure Control Plan for Blood borne Pathogens Training; Biological Safety Guidelines Training
Handling of hazardous wastes	Hazardous Waste Management Plan Training
Proper Fueling Procedures (LPG, Diesel, & Gas)	Training in procedures and safety equipment

**FORM 1**  
**SAFETY INSPECTION CHECKLIST**

Date: \_\_\_\_\_ Facility \_\_\_\_\_  
Supervisor: \_\_\_\_\_ Auditor(s) \_\_\_\_\_

This checklist is used to verify that employees are in compliance with Federal State and Local Safety regulations and SCSD safety guidelines. Each item is rated on compliance, and any discrepancy must be noted in the “corrective action” column. All discrepancies need to be corrected. A response regarding the corrective action items is required within “15 working days.” Thank you for your cooperation.

**Below is the key to compliance:**

√ : In Compliance                      NA: Non Applicable                      \*: Not in compliance needs corrective action within 15 days.

**1) GENERAL SAFETY**

#	Rating	Safety Items
1		Food/beverages are only consumed/stored in approved areas.
2		Good housekeeping is maintained in all work areas, no situation exists that could create a fire, egress or earthquake hazard.
3		All aisles and exits are free from debris (3’ minimum width clearance for walkway, 4’ minimum width clearance for pallet thoroughfares and 5’ minimum width in forklift aisles are required)
4		If stairs are present, no items are stored under/adjacent to stairs or on stairwell landings.
5		All equipment and materials have at least 18” clearance from fire sprinkler heads.
6		All equipment, tools, fixtures and material must be in designated place for storage if not in use.
7		Heavy equipment and material are stored below shoulder level.
8		Ceiling tiles are secure and none are missing.
9		Walking surfaces are non-slippery.
10		No obstruction in front of electrical panels, fire extinguishers (minimum 36” clearance is required), and eyewash/shower units.
11		All chemicals are properly stored and labeled.
12		Trash and scrap must be stored in proper waste containers.
13		There are no spills in the area; otherwise the affected area is cordoned off and a descriptive sign “Water on the Floor” is posted.

14		Equipment and machinery are free of debris, unless in operation.
15		All equipment/machinery safe guards are in operation and “not” dismantled.
16		No personal electrical appliances are used in the work area
17		A “DO NOT USE” sticker is in place on all non-operational equipment and machinery, or lockout/blockout/tagout is employed as applicable.
18		Dome Mirrors are located where necessary.
19		Sharps used are appropriate for the task, not left lying around and disposed into sharps keepers when discarded.
20		PPE that is required in the area, is always available and in use.
21		Materials or equipment are stored in such a way that projections do not interfere with walkway.

## 2) EMERGENCY/FIRE SAFETY

#	Rating	Safety Items
22		An established safety posting area exists and contains: a) The most recent monthly safety minutes.
		b) Other specific safety posting notices.
23		Emergency exits are clearly marked and free of debris.
24		Emergency exit lights, if present, are fully illuminated and working.
25		Fire extinguishers, if present, are checked monthly.
26		Each eyewash/shower unit has an up-to-date record tag and is checked monthly.
27		Only Flammables are stored in Flammables storage cabinets.
28		Electrical cords are in good condition and not frayed.
29		All cord, cable and raceway connections are intact and secure. Electrical cords do not present a tripping or electrical hazard.
30		The use of extension cords (power taps) is limited such that they are not used in place of fixed wiring. In addition these cords are UL and /or CSA rated and have circuit breakers.
31		Power taps/surge protectors may not be connected together.
#	Rating	Tools
32		Tools and equipment in good repair
33		A power shut off is within the operator’s reach
34		All moving chains and gears are properly guarded
35		Protective Guards are used
36		All machinery and tabletop equipment is secured to prevent movement or tipping during operation





**FORM 2-A**

**JOB HAZARD ANALYSIS FORM - EXAMPLE**

<b>DEPARTMENT</b> Maintenance Shop/Storage	<b>JOB TITLE</b> Baler Operator	<b>DATE REVISED 07/01/15</b>	
<b>SEQUENCE OF BASIC JOB STEPS</b>	<b>HAZARD OR POTENTIAL INCIDENT</b>	<b>RECOMMENDED CORRECTIVE MEASURES</b>	
Transport broken down boxes to baler.	1A. Muscle strain from pushing heavy cart.	1A1. Provide motorized cart.	
		1A2. Palletize flattened boxes.	
	1B. Collision with other vehicles/obstacles.	1B1. Install overhead mirrors at intersections.	
		1B2. Require daily removal of all obstacles.	
	1C. Body parts caught between cart and baler.	1C1. Paint floor to identify where to park cart.	
		1C2. Wear heavy gloves.	
Transfer boxes from cart to baler.	2A. Hands/fingers caught in baler doors.	2A1. Wear heavy gloves.	
		2A2. Extend door handles away from pinch-point.	
	2B. Hands caught between doors and boxes.	2B1. Wear heavy gloves.	
	2C. Cuts from edges of cardboard.	2C1. Wear heavy gloves, arm protection, safety glasses.	
	Compress boxes.	3A. Hands/fingers caught in baler doors.	3A1. Wear heavy gloves.
			3A2. Extend door handles.
3B. Struck by unlatched doors.		3B1. Install automatic latches/interlock system.	
Tie bale with wire.	4A. Hands/fingers caught in baler doors.	4A1. Use proper lifting techniques	
		4A2. Extend door handles.	
	4B. Cuts/punctures from wire.		
		4B1. Wear gloves, arm protection, safety glasses.	
Remove bale from baler.	5A. Muscle strain from lifting bales.	5A1. Install conveyor from baler to cart	

<b>DEPARTMENT</b> Maintenance Shop/Storage	<b>JOB TITLE</b> Baler Operator	<b>DATE REVISED 07/01/15</b>
<b>SEQUENCE OF BASIC JOB STEPS</b>	<b>HAZARD OR POTENTIAL INCIDENT</b>	<b>RECOMMENDED CORRECTIVE MEASURES</b>
		5A2. Install hydraulic lifting device
		5A3. Limit/reduce max. size of bale
Transport bales to shipping area.	6A. Muscle strain from lifting bales.	6A1. Palletize bales/use powered vehicle
		6A2. Limit/reduce total load weight
	6B. Collision with other vehicles/obstacles.	6B1. Install overhead mirrors at intersections.
<b>Completed by:</b> John A. Smith	<b>Safety Officer Approval:</b>	

**FORM 3**

**SUPERVISOR REPORT OF INJURY/ILLNESS INVESTIGATION – ACUTE INJURY**

<b>INJURY INVESTIGATION</b> <b>Supervisor's Report</b>
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**GENERAL INFORMATION**

Name of Employee:	Date of Injury:
Time of Injury:	Shift:
Employee #:	Date Reported to General Manager:
Type of Injury:	Supervisor:
Supervisor's Name:	Telephone Number:

SUPERVISOR:	<b>1. Please complete all questions.</b> <b>2. Review with Manager.</b> <b>3. Return form to General Manager</b>
INJURED EMPLOYEE:	DATE AND TIME OF INCIDENT:
ACCIDENT LOCATION:	INJURY TYPE:

<p>1. Briefly describe the incident and list any direct causes, including personal practices, work habits, or tools involved.</p>          <p>2. If applicable, describe the mechanical defect or inadequate safety equipment that have contributed to this incident.</p>
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3. What will you do to prevent another occurrence?	
Other notes:	
Supervisor Signature:	Report Date:
Manager Signature:	Date:

List Witnesses:

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**Complete the following questions regarding this Injury.**

1. WHAT HAPPENED SPECIFICALLY? (i.e. the setting, chain of events, actions, reactions).
2. WHERE DID THE INJURY OCCUR? (i.e. maintenance shop, loading dock, hallway, etc.).
3. WERE ESTABLISHED SAFE WORK PRACTICES BEING FOLLOWED? IF NOT, PROVIDE SPECIFICS.
4. WAS APPROPRIATE PPE BEING USED? IF NOT, PROVIDE SPECIFICS.
5. WAS EMPLOYEE CONDUCT OR APPARENT LACK OF TRAINING/UNDERSTANDING OF SAFE WORK PRACTICES A FACTOR IN THIS INCIDENT? IF SO, PROVIDE DETAILS.
6. HAS EMPLOYEE BEEN PROVIDED DOCUMENTED SAFETY TRAINING REGARDING THE HAZARD OF THE TASK BEING PERFORMED?
7. WAS EQUIPMENT CONDITION OR WORK AREA A FACTOR IN THIS INCIDENT?

8. LIST ANY OTHER CONTRIBUTING FACTORS:
9. LIST CORRECTIVE ACTIONS TAKEN OR RECOMMENDATIONS FOR PREVENTION OF FUTURE INCIDENTS OF A SIMILAR NATURE.
10. ESTIMATED DATE CORRECTIVE ACTIONS WILL BE COMPLETED:
11. FOLLOW-UP REQUIRED? BY WHOM?
12. IS THE EMPLOYEE WORKING WITH ANY RESTRICTIONS?
13. DID THE EMPLOYEE LOSE ANY FULL DAYS FROM WORK? PLEASE GIVE DATES.

**SAFETY NOTES:**

Supervisors Report completed: yes / no      Date sent to General Manager \_\_\_\_\_



**FORM 5**  
**HAZARD ASSESSMENT CHECKLIST**

**GENERAL WORK ENVIRONMENT**

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

**PERSONAL PROTECTIVE EQUIPMENT (“PPE”) & CLOTHING**

- Protective goggles or face shields provided and worn where there is any danger of flying particles or corrosive materials
- Approved safety glasses required to be worn at all times in areas where there is a risk of eye injuries
- Employees who need corrective lenses (glasses or contacts lenses) in working environments with harmful exposures, required to wear only approved safety glasses, protective goggles, or use other medically approved precautionary procedures
- Protective gloves, aprons, shields, or other means provided against cuts, corrosive liquids and chemicals
- Hard hats are provided and worn where danger of falling objects exists

- Hard hats inspected periodically for damage to the shell and suspension system
- Appropriate foot protection required where there is the risk of foot injuries.
- Approved respirators are provided for regular or emergency use
- All protective equipment maintained in a sanitary condition and ready for use
- Eye wash facilities and a quick drench shower within the work area where employees are exposed to injurious corrosive materials
- Special equipment needed for electrical employees is available
- Lunches eaten on the premises are in areas where there is no exposure to toxic materials or other health hazards
- Protection against the effects of occupational noise exposure provided

#### WALKWAYS

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

#### FLOOR & WALL OPENINGS

- Floor openings guarded by a cover, guardrail, or equivalent on all sides (except at entrance to stairways or ladders)
- Toe-boards installed around the edges of a permanent floor opening (where persons may pass below the opening)
- Skylight screens of such construction and mounting that they will withstand a load of at least 200 pounds

- Glass in windows, doors, glass walls that are subject to human impact, of sufficient thickness and type for the condition of use
- Grates or similar type covers over floor openings such as floor drains, of such design that foot traffic or rolling equipment will not be affected by the grate spacing
- Unused portions of service pits and pits not actually in use either covered or protected by guardrails or equivalent
- Manhole covers, trench covers and similar covers, plus their supports, designed to carry a truck rear axle load of at least 20,000 pounds when located in roadways and subject to vehicle traffic
- Floor or wall openings in fire resistive construction provided with doors or covers compatible with the fire rating of the structure and provided with self-closing feature when appropriate

#### STAIRS & STAIRWAYS

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

#### ELEVATED SURFACES

- Signs posted, when appropriate, showing the elevated surface load capacity
- Surfaces elevated more than 30 inches above the floor or ground provided with standard guardrails

- All elevated surfaces (beneath which people or machinery could be exposed to falling objects) provided with standard 4-inch toe-boards
- Permanent means of access and egress provided to elevated storage and work surfaces
- Required headroom provided where necessary
- Material on elevated surfaces piled, stacked or racked in a manner to prevent it from tipping, falling, collapsing, rolling or spreading

#### EXITING OR EGRESS

- All exits marked with an exit sign and illuminated by a reliable light source
- Directions to exits, when not immediately apparent, marked with visible signs
- Doors, passageways or stairways, that are neither exits nor access to exits and which could be mistaken for exits, appropriately marked "NOT AN EXIT", "TO BASEMENT", "STOREROOM"
- Exit signs provided with the word "EXIT" in lettering at least 6 inches high and the stroke of the lettering at least 3/4 inch wide
- Exit doors side-hinged
- All exits kept free of obstructions
- At least two means of egress provided from elevated platforms, pits or rooms where the absence of a second exit would increase the risk of injury
- Sufficient exits to permit prompt escape in case of emergency
- Special precautions taken to protect employees during construction and repair operations
- Number of exits from each floor of a building, and the number of exits from the building itself, appropriate for the building occupancy load
- Exit stairways which are required to be separated from other parts of a building enclosed by at least two hour fire-resistive construction in buildings more than four stories in height, and not less than one-hour fire resistive construction elsewhere
- Ramps used as part of required exiting from a building, ramp slope limited to 1- foot vertical and 12 feet horizontal
- Exiting through frameless glass doors, glass exit doors, storm doors and such, doors fully tempered and meet the safety requirements for human impact

#### EXIT DOORS

- Doors required to serve as exits designed and constructed so that the way of exit travel is obvious and direct
- Windows that could be mistaken for exit doors, made inaccessible by means of barriers or railings
- Exit doors opened from the direction of exit travel without the use of a key or any special knowledge or effort, when the building is occupied

- Revolving, sliding or overhead door prohibited from serving as a required exit door
- Panic hardware installed on a required exit door, allows the door to open by applying a force of 15 pounds or less in the direction of the exit traffic
- Exit doors that open directly onto any street, alley or other area where vehicles may be operated, are adequate barriers and warnings are provided to prevent employees stepping into the path of traffic
- Doors that swing in both directions and are located between rooms where there is frequent traffic are provided with viewing panels in each door

#### PORTABLE LADDERS

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

#### HAND TOOLS & EQUIPMENT

- All tools and equipment used by employees at their workplace in good condition

- Hand tools such as chisels, punches, which develop mushroomed heads during use, are reconditioned or replaced as necessary
- Broken or fractured handles on hammers, axes and similar equipment replaced promptly
- Worn or bent wrenches replaced regularly
- Appropriate handles used on files and similar tools
- Employees are made aware of the hazards caused by faulty or improperly used hand tools
- Appropriate safety glasses, face shields, and similar equipment are used while using hand tools or equipment that might produce flying materials or be subject to breakage
- Jacks checked periodically to assure they are in good operating condition
- Tool handles wedged tightly in the head of all tools
- Tool cutting edges kept sharp so the tool will move smoothly without binding or skipping
- Tools stored in dry, secure location where they won't be tampered with
- Eye and face protection used when driving hardened or tempered spuds or nails

#### PORTABLE (POWER OPERATED) TOOLS & EQUIPMENT

- Grinders, saws, and similar equipment provided with appropriate safety guards
- Power tools used with the correct shield, guard or attachment recommended by the manufacturer
- Portable circular saws equipped with guards above and below the base shoe
- Circular saw guards checked to assure they are not wedged up, thus leaving the lower portion of the blade unguarded
- Rotating or moving parts of equipment guarded to prevent physical contact
- All cord-connected, electrically operated tools and equipment effectively grounded or of the approved double insulated type
- Effective guards in place over belts, pulleys, chains, and sprockets, on equipment such as concrete mixers, air compressors, and the like
- Portable fans provided with full guards or screens having openings 1/2 inch or less
- Hoisting equipment available and used for lifting heavy objects, and hoist ratings and characteristics appropriate for the task
- Ground-fault circuit interrupters provided on all temporary electrical 15 and 20 ampere circuits, used during periods of construction
- Pneumatic and hydraulic hoses on power-operated tools checked regularly for deterioration or damage

#### ABRASIVE WHEEL EQUIPMENT GRINDERS

- Work rest used and kept adjusted to within 1/8 inch of the wheel

- Adjustable tongue on the top side of the grinder used and kept adjusted to within 1/4 inch of the wheel
- Side guards cover the spindle, nut, and flange and 75 percent of the wheel diameter
- Bench and pedestal grinders permanently mounted
- Goggles or face shields always worn when grinding
- Maximum RPM rating of each abrasive wheel compatible with the RPM rating of the grinder moto
- Fixed or permanently mounted grinders connected to their electrical supply system with metallic conduit or other permanent wiring method
- Each grinder have an individual on and off control switch
- Each electrically operated grinder effectively grounded
- New abrasive wheels are visually inspected and ring tested before mounted
- Dust collectors and powered exhausts provided on grinders used in operations that produce large amounts of dust
- Splashguards mounted on grinders that use coolant, to prevent the coolant reaching employees
- Cleanliness maintained around grinder

#### POWDER ACTUATED TOOLS

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

#### MACHINE GUARDING

- Training program to instruct employees on safe methods of machine operation
- Adequate supervision to ensure that employees are following safe machine operating procedures
- A regular program of safety inspection of machinery and equipment
- All machinery and equipment kept clean and properly maintained

- Sufficient clearance provided around and between machines to allow for safe operations, set up and servicing, material handling and waste removal
- Equipment and machinery securely placed and anchored when necessary to prevent tipping or other movement that could result in personal injury
- A power shut-off switch within reach of the operator's position at each machine
- Electric power to each machine can be locked out for maintenance, repair, or security
- Non-current-carrying metal parts of electrically operated machines are bonded and grounded
- Foot-operated switches guarded or arranged to prevent accidental actuation by personnel or falling objects
- Manually operated valves and switches controlling the operation of equipment and machines clearly identified and readily accessible
- All emergency stop buttons are colored red
- All pulleys and belts that are within 7 feet of the floor or working level are properly guarded
- All moving chains and gears are properly guarded
- Splashguards are mounted on machines that use coolant to prevent the coolant from reaching employees
- Methods are provided to protect the operator and other employees in the machine area from hazards created at the point of operation, ingoing nip points, rotating parts, flying chips, and sparks
- Machinery guards are secure and arranged that they do not offer a hazard in their use
- Special hand tools used for placing and removing material, protect the operator's hands
- Revolving drums, barrels, and containers are required to be guarded by an enclosure that is interlocked with the drive mechanism, so that revolution cannot occur unless the guard enclosure is in place
- Arbors and mandrels have firm and secure bearings and are they free from play
- Provisions made to prevent machines from automatically starting when power is restored after a power failure or shutdown
- Machines constructed so as to be free from excessive vibration when the largest size tool is mounted and run at full speed
- If machinery is cleaned with compressed air, air pressure is controlled and PPE or other safeguards are used to protect operators and other employees from eye and body injury
- Fan blades are protected with a guard having openings no larger than 1/2 inch, when operating within 7 feet of the floor
- Saws used for ripping are equipped with anti-kick back devices and spreaders

- Radial arm saws are arranged so that the cutting head will gently return to the back of the table when released

#### LOCKOUT/BLOCKOUT/TAGOUT PROCEDURES

- All machinery or equipment capable of movement is required to be de-energized or disengaged and blocked and/or locked out along with being properly tagged during cleaning, servicing, adjusting or setting up operations, whenever required
- Locking-out of control circuits in lieu of locking-out main power disconnects prohibited
- All equipment control valve handles provided with a means for locking-out
- Lockout procedure requires that stored energy (i.e. mechanical, hydraulic, air,) be released or blocked before equipment is locked-out for repairs
- Appropriate employees provided with individually keyed personal safety locks
- Employees are required to keep personal control of their key(s) while they have safety locks in use
- Employees check the safety of the lock out by attempting a start up after making sure no one is exposed
- The power disconnecting means for equipment does not also disconnect the electrical control circuit
- The appropriate electrical enclosures are identified
- Means are provided to assure the control circuit can also be disconnected and locked out

#### WELDING, CUTTING & BRAZING

- Only authorized and trained personnel are permitted to use welding, cutting or brazing equipment
- All operators have a copy of the appropriate operating instructions and are directed to follow them
- Compressed gas cylinders regularly examined for obvious signs of defects, deep rusting, or leakage
- Care is used in handling and storage of cylinders, safety valves, relief valves, and the like, to prevent damage
- Precautions are taken to prevent the mixture of air or oxygen with flammable gases, except at a burner or in a standard torch
- Only approved apparatus (torches, regulators, pressure-reducing valves, acetylene generators, manifolds) are used
- Cylinders are kept away from sources of heat
- It is prohibited to use cylinders as rollers or supports
- Empty cylinders are appropriately marked, valves closed, and valve-protection caps on

- Signs reading: DANGER NO-SMOKING, MATCHES, OR OPEN LIGHTS, or the equivalent posted
- Cylinders, cylinder valves, couplings, regulators, hoses, and apparatus keep free of oily or greasy substances
- Care taken not to drop or strike cylinders
- Regulators are removed and valve-protection caps are put in place before moving cylinders, unless secured on special trucks
- Cylinders without fixed hand wheels have keys, handles, or non-adjustable wrenches on stem valves when in service
- Liquefied gases stored and shipped valve-end up with valve covers in place
- Employees instructed to never crack a fuel-gas cylinder valve near sources of ignition
- Before a regulator is removed, the valve is closed and gas released from the regulator
- Red is used to identify the acetylene (and other fuel-gas) hose, green for oxygen hose, and black for inert gas and air hose
- Pressure-reducing regulators are used only for the gas and pressures for which they are intended
- Open circuit (No Load) voltage of arc welding and cutting machines is as low as possible and not in excess of the recommended limits
- Under wet conditions, automatic controls are used for reducing no-load voltage
- Grounding of the machine frame and safety ground connections of portable machines are checked periodically
- Electrodes are removed from the holders when not in use
- It is required that electric power to the welder be shut off when no one is in attendance
- Suitable fire extinguishing equipment is available for immediate use
- The welder is forbidden to coil or loop welding electrode cable around his body
- Wet machines thoroughly dried and tested before being used
- Work and electrode lead cables are frequently inspected for wear and damage, and replaced when needed
- Means for connecting cables' lengths have adequate insulation
- When the object to be welded cannot be moved and fire hazards cannot be removed, shields are used to confine heat, sparks, and slag
- Firewatchers are assigned when welding or cutting is performed, in locations where a serious fire might develop
- Combustible floors kept wet, covered by damp sand, or protected by fire-resistant shields
- When floors are wet down, personnel are protected from possible electrical shock

- When welding is done on metal walls, precautions are taken to protect combustibles on the other side
- Before hot work begins, used drums, barrels, tanks, and other containers are thoroughly cleaned so that no substances remain that could explode, ignite, or produce toxic vapors
- It is required that eye protection helmets, hand shields and goggles meet appropriate standards
- Employees exposed to the hazards created by welding, cutting, or bracing operations are protected with PPE and clothing
- A check is made for adequate ventilation in and where welding or cutting is performed
- When working in confined places environmental monitoring tests are taken and means are provided for quick removal of welders in case of an emergency

#### COMPRESSORS & COMPRESSED AIR

- Compressors are equipped with pressure relief valves, and pressure gauges
- Compressor air intakes are installed and equipped to ensure only clean uncontaminated air enters the compressor
- Air filters are installed on the compressor intake
- Compressors are operated and lubricated in accordance with the manufacturer's recommendations
- Safety devices on compressed air systems are checked frequently
- Before any repair work is done on the pressure system of a compressor, the pressure is bled off and the system is locked-out
- Signs are posted to warn of the automatic starting feature of the compressors
- The belt drive system is totally enclosed to provide protection for the front, back, top, and sides
- It is strictly prohibited to direct compressed air towards a person
- Employees are prohibited from using highly compressed air for cleaning purposes
- Compressed air is not to be used for cleaning off clothing, so not to create a hazard to the eyes, breathing, inhalation and skin
- When using compressed air for cleaning, employees use PPE
- Safety chains or other suitable locking devices are used at couplings of high pressure hose lines where a connection failure would create a hazard
- Before compressed air is used to empty containers of liquid, the safe working pressure of the container is checked
- When compressed air is used with abrasive blast cleaning equipment, the operating valve is a type that must be held open manually

- When compressed air is used to inflate auto tires, a clip-on chuck and an inline regulator preset to 40 psi is required
- It is prohibited to use compressed air to clean up or move combustible dust if such action could cause the dust to be suspended in the air and cause a fire or explosion hazard

#### COMPRESSED AIR RECEIVERS

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

#### COMPRESSED GAS & CYLINDERS

- Cylinders with a water weight capacity over 30 pounds are equipped with means for connecting a valve protector device, or with a collar or recess to protect the valve
- Cylinders are legibly marked to clearly identify the gas contained
- Compressed gas cylinders are stored in areas which are protected from external heat sources such as flame impingement, intense radiant heat, electric arcs, or high temperature lines
- Cylinders are located or stored in areas where they will not be damaged by passing or falling objects, or subject to tampering by unauthorized persons
- Cylinders are stored or transported in a manner to prevent them creating a hazard by tipping, falling or rolling
- Cylinders containing liquefied fuel gas, are stored or transported in a position so that the safety relief device is always in direct contact with the vapor space in the cylinder
- Valve protectors are always placed on cylinders when the cylinders are not in use or connected for use
- All valves are closed off before a cylinder is moved, when the cylinder is empty, and at the completion of each job

- Low pressure fuel-gas cylinders are checked periodically for corrosion, general distortion, cracks, or any other defect that might indicate a weakness or render it unfit for service
- The periodic check of low pressure fuel-gas cylinders includes a close inspection of the cylinders' bottom

#### HOIST & AUXILIARY EQUIPMENT

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

#### INDUSTRIAL TRUCKS - FORKLIFTS

- Only trained personnel are allowed to operate industrial trucks
- Substantial overhead protective equipment is provided on high lift rider equipment
- Required lift truck operating rules are posted and enforced
- Directional lighting is provided on each industrial truck that operates in an area with less than 2 foot candles per square foot of general lighting
- Each industrial truck has a warning horn, whistle, gong or other device which can be clearly heard above the normal noise in the areas where operated
- The brakes on each industrial truck are capable of bringing the vehicle to a complete and safe stop when fully loaded

- The industrial truck's parking brake will effectively prevent the vehicle from moving when unattended
- Industrial trucks operating in areas where flammable gases or vapors, or combustible dust or ignitable fibers may be present in the atmosphere, are approved for such locations
- Motorized hand and hand/rider trucks are designed so that when the operator releases his/her grip on the device that controls the travel and the brakes are applied, the power to the drive motor shuts off
- Industrial trucks with internal combustion engines operated in buildings or enclosed areas are carefully checked to ensure operations do not cause harmful concentration of dangerous gases or fumes

#### ENVIRONMENTAL CONTROLS

- All work areas are properly illuminated
- Employees are instructed in proper first aid and other emergency procedures
- Hazardous substances are identified, which may cause harm by inhalation, ingestion, skin absorption or contact
- Employees are aware of the hazards involved with the various chemicals they may be exposed to in their work environment, such as ammonia, chlorine, epoxies, and caustics
- Employee exposure to chemicals in the workplace is kept within acceptable levels
- The work area's ventilation system is appropriate for the work being performed
- Employee exposure to welding fumes is controlled by ventilation, use of respirators, exposure time, or other means
- Welders and other employees nearby are provided with flash shields during welding operations
- The carbon monoxide levels are kept below maximum acceptable concentration where forklifts and other vehicles are used in buildings or other enclosed areas
- Noise levels in the facilities are within acceptable levels
- Steps are taken to use engineering controls to reduce excessive noise levels
- PPE is provided, used, and maintained wherever required
- There are written standard operating procedures for the selection and use of respirators
- Employees are instructed in the proper manner of lifting heavy objects

#### FLAMMABLE & COMBUSTIBLE MATERIALS

- Combustible scrap, debris and waste materials (i.e. oily rags) are stored in covered metal receptacles and removed from the worksite promptly
- Proper storage is practiced to minimize the risk of fire including spontaneous combustion
- Approved containers and tanks are used for the storage and handling of flammable and combustible liquids

- All connections on drums and combustible liquid piping, vapor and liquid are tight
- All flammable liquids are kept in closed containers when not in use (e.g. parts, cleaning tanks, pans)
- Bulk drums of flammable liquids are grounded and bonded to containers during dispensing
- Storage rooms for flammable and combustible liquids have explosion-proof lights
- Storage rooms for flammable and combustible liquids have mechanical or gravity ventilation
- Liquefied petroleum gas is stored, handled, and used in accordance with safe practices and standards
- Liquefied petroleum storage tanks are guarded to prevent damage from vehicles
- All solvent wastes and flammable liquids are kept in fire-resistant covered containers until they are removed from the worksite
- Vacuuming is used whenever possible rather than blowing or sweeping combustible dust
- Fire separators are placed between containers of combustibles or flammables, when stacked one upon another, to assure their support and stability
- Fuel gas cylinders and oxygen cylinders are separated by distance, fire resistant barriers or other means while in storage
- Fire extinguishers are selected and provided for the types of materials in areas where they are to be used (Class A: Ordinary combustible material fires; Class B: Flammable liquid, gas or grease fires; Class C: Energized-electrical equipment fires)
- Appropriate fire extinguishers are mounted within 75 feet of outside areas containing flammable liquids, and within 10 feet of any inside storage area for such materials
- The transfer/withdrawal of flammable or combustible liquids is performed by trained personnel
- Fire extinguishers are mounted so that employees travel no more than 75 feet for a class "A" fire or 50 feet for a class "B" fire
- Employees are trained in the use of fire extinguishers
- Extinguishers are free from obstructions or blockage
- All extinguishers are serviced, maintained and tagged at intervals not to exceed one year
- All extinguishers are fully charged and in their designated places
- Record is maintained of required monthly checks of extinguishers
- Where sprinkler systems are permanently installed, the nozzle heads are directed or arranged so that water will not be sprayed into operating electrical switchboards and equipment

- "NO SMOKING" signs are posted where appropriate in areas where flammable or combustible materials are used or stored
- "NO SMOKING" signs are posted on liquefied petroleum gas tanks
- "NO SMOKING" rules are enforced in areas involving storage and use of flammable materials
- Safety cans are used for dispensing flammable or combustible liquids at a point of use
- All spills of flammable or combustible liquids are cleaned up promptly
- Storage tanks are adequately vented to prevent the development of excessive vacuum or pressure as a result of filling, emptying, or atmosphere temperature changes

#### FIRE PROTECTION

- A fire prevention plan is in place
- The plan describes the type of fire protection equipment and/or systems
- Practices and procedures are established to control potential fire hazards and ignition sources
- Employees are aware of the fire hazards of the material and processes to which they are exposed
- The local fire department is well acquainted with the facilities, location, and specific hazards
- The fire alarm system (if present) is tested (at least) annually
- The fire alarm system (if present) is certified as required
- Interior standpipes and valves (if present) are inspected regularly
- Outside private fire hydrants (if present) are flushed at least once a year and on a routine preventive maintenance schedule
- Fire doors and shutters are in good operating condition
- Fire doors and shutters are unobstructed and protected against obstructions, including their counterweights
- Fire door and shutter fusible links are in place
- Automatic sprinkler system water control valves, air and water pressures are checked weekly/periodically as required
- Maintenance of automatic sprinkler system is assigned to responsible persons or to a sprinkler contractor
- Sprinkler heads are protected by metal guards, when exposed to physical damage
- Proper clearance is maintained below sprinkler heads
- Portable fire extinguishers are provided in adequate number and type
- Fire extinguishers are mounted in readily accessible locations

- Fire extinguishers are recharged regularly and noted on the inspection tag
- Employees are periodically instructed in the use of extinguishers and fire protection procedures

#### HAZARDOUS CHEMICAL EXPOSURES

- Employees are trained in the safe handling practices of hazardous chemicals such as acids, caustics, and the like
- Employees are aware of the potential hazards involving various chemicals stored or used in the workplace--such as acids, bases, caustics, epoxies, and phenols
- Employee exposure to chemicals is kept within acceptable levels
- Eye wash fountains and safety showers are provided in areas where corrosive chemicals are handled
- All containers, such as vats and storage tanks are labeled as to their contents
- All employees are required to use personal protective clothing and equipment when handling chemicals
- Flammable or toxic chemicals are kept in closed containers when not in use
- Chemical piping systems are clearly marked as to their content
- Adequate means are readily available for properly and safely neutralizing or disposing of spills or overflows where corrosive liquids are frequently handled in open containers or drawn from storage vessels or pipelines
- Standard operating procedures have been established and are followed when cleaning up chemical spills
- Respirators are stored in a convenient, clean, and sanitary location for emergency use
- Respirators are adequate for the various uses for which they may be needed
- Employees are prohibited from eating in areas where hazardous chemicals are present
- PPE is provided, used, and maintained whenever necessary
- There are written standard operating procedures for the selection and use of respirators
- Employees are instructed on the correct usage and limitations of respirators
- Respirators are NIOSH approved
- Respirators are regularly inspected, cleaned, sanitized, and maintained
- There is a medical or biological monitoring system in operation where hazardous substances are used
- Employees are familiar with the Threshold Limit Values or Permissible Exposure Limits of airborne contaminants and physical agents used in the workplace
- Control procedures have been instituted for hazardous materials

- Hazardous substances are handled in properly designed and exhausted booths or similar locations
- General dilution or local exhaust ventilation systems are used to control dusts, vapors, gases, fumes, smoke, solvents or mists which may be generated in the workplace
- Ventilation equipment is provided for removal of contaminants from operations such as production grinding, buffing, spray painting, and/or vapor decreasing, and it is operating properly
- Employees complain about dizziness, headaches, nausea, irritation, or other factors of discomfort when using solvents or other chemicals
- Employees complain about dermatitis problems- skin dryness, irritation, or sensitization
- An industrial hygienist or environmental health specialist has evaluated the operation
- Carbon monoxide is kept within acceptable levels where internal combustion engines are used
- Vacuuming is used whenever possible for clean up
- Materials which give off toxic asphyxiate, suffocating or anesthetic fumes are stored in remote or isolated locations when not in use

#### HAZARDOUS SUBSTANCES COMMUNICATION

- There is a list of hazardous substances used in the workplace
- There is a written hazard communication program dealing with SDS labeling, and employee training
- Each container of a hazardous substance is labeled with product identity and hazard warning
- There is a SDS readily available for each hazardous substance used
- Other employees sharing the same work area where the hazardous substances are used are informed of the substances
- Employee training programs for hazardous substances include:
  - An explanation of what an SDS is, how to use and obtain one, and SDS contents for each hazardous substance or class of substances
  - Explanation of "Right to Know"
  - Identification of where employees can see the written hazard communication program and where hazardous substances are present in their work area
  - The physical and health hazards of substances in the work area, how to detect their presence, and specific protective measures to be used
  - Details of the Hazard Communication Program-Globally Harmonized System, including how to use the labeling system and SDS

- How employees will be informed of hazards of non-routine tasks, and hazards of unlabeled pipes

## ELECTRICAL

- Workplace electricians are familiar with the Cal-OSHA Electrical Safety Orders
- Cal-OSHA compliance is specified for all contract electrical work
- All employees are required to immediately report any hazard to life or property observed in connection with electrical equipment or lines
- Employees are instructed to make preliminary inspections and/or appropriate tests to determine what conditions exist before starting work on electrical equipment or lines
- When electrical equipment or lines are to be serviced, maintained, or adjusted, necessary switches are opened, locked-out, and tagged
- Portable electrical tools and equipment are grounded or double insulated
- Electrical appliances are grounded
- Extension cords have a grounding conductor
- Multiple plug adapters are prohibited
- Ground-fault circuit interrupters are installed on each temporary 15 or 20 ampere, 120 volt AC circuit at locations where construction, demolition, modifications, alterations or excavations are performed
- All temporary circuits are protected by suitable disconnecting switches or plug connectors at the junction with permanent wiring
- Exposed wires and cords with frayed or deteriorated insulation are repaired or replaced promptly
- Flexible cords and cables are free of splices or taps
- Clamps or other securing means are provided on flexible cords or cables at plugs, receptacles, tools, and equipment, and the cord jacket is securely held in place
- All cord, cable and raceway connections are intact and secure
- In wet or damp locations, electrical tools and equipment are appropriate for the use or location or otherwise protected
- The location of electrical power lines and cables is determined before digging, drilling or similar work begins
- Metal measuring tapes, ropes, hand lines, or any devices with metallic thread are prohibited where they could come in contact with energized parts of equipment or circuit conductors
- The use of metal ladders is prohibited in areas where the ladder or person using the ladder could come in contact with energized parts of equipment, fixtures or circuit conductors

- All disconnecting switches and circuit breakers are labeled to indicate their use or equipment served
- Disconnecting means are always opened before fuses are replaced
- All interior wiring systems include provisions for grounding metal parts of electrical raceways, equipment, and enclosures
- All electrical raceways and enclosures are securely fastened in place
- All energized parts of electrical circuits and equipment are guarded against accidental contact by approved cabinets or enclosures
- Sufficient access and working space is provided and maintained around all electrical equipment to permit ready and safe operations and maintenance
- All unused openings (including conduit knockouts) in electrical enclosures and fittings are closed with appropriate covers, plugs or plates
- Electrical enclosures such as switches, receptacles, junction boxes, etc., are provided with tight-fitting covers or plates
- Disconnecting switches for electrical motors in excess of two horsepower are capable of opening the circuit without exploding when the motor is in a stalled condition (Switches must be horsepower rated equal to or in excess of the motor hp rating)
- Low voltage protection is provided in the control device of motors, driving machines, or equipment which could cause injury from inadvertent starting
- Each motor disconnecting switch or circuit breaker is located within sight of the motor control device
- Each motor is located within sight of its controller or the controller disconnecting means is capable of being locked in the open position, or is a separate disconnecting means installed in the circuit within sight of the motor
- The controller for each motor in excess of two horsepower is rated in horsepower equal to or in excess of the rating of the motor it serves
- Employees who regularly work on or around energized electrical equipment or lines are instructed in CPR methods
- Employees are prohibited from working alone on energized lines or equipment over 600 volts

#### EAR PROTECTION

- There are areas in the workplace where continuous noise levels exceed 85 dBA
- Noise levels are measured using a sound level meter or an octave band analyzer and records are kept
- Noisy machinery is isolated from the rest of the operation
- Engineering controls are used to reduce excessive noise levels

- Administrative controls are used to minimize individual employee exposure to noise where engineering controls are determined infeasible
- There is an ongoing preventive health program to educate employees in safe levels of noise and exposure, effects of noise on their health, and use of personal protection
- Training is repeated annually for employees exposed to continuous noise above 85 dBA
- Work areas where noise levels make communication between employees difficult have been identified and posted
- Approved hearing protective equipment is available to every employee working in areas where continuous noise levels exceed 85 dBA
- Employees are properly fitted and instructed in use and care of ear protectors
- Employees exposed to continuous noise above 85 dBA are given periodic audiometric testing to ensure the hearing protection system is effective

#### IDENTIFICATION OF PIPING SYSTEMS

- All outlets or taps are posted to alert employees that non-potable water is unsafe and not to be used for drinking, washing or other personal use
- Each pipeline where hazardous substances are transported through above ground piping is identified at points where confusion could introduce hazards to employees
- Pipelines are identified by color painting and all visible parts of the line are so identified
- Color painted bands or tapes identifying pipelines are located at reasonable intervals and at each outlet, valve, or connection
- Pipelines identified by color, have a color code posted at all locations where confusion could introduce hazards to employees
- Contents of pipelines identified by name or name abbreviation has information readily visible on the pipe near each valve or outlet
- Pipelines carrying hazardous substances are identified by tags constructed of durable materials, with the message carried clearly and permanently distinguishable, and installed at each valve or outlet
- Pipelines heated by electricity, steam or other external source, have suitable warning signs or tags placed at unions, valves, or other serviceable parts of the system

#### MATERIAL HANDLING

- There is safe clearance for equipment through aisles and doorways
- Aisle ways are designated, permanently marked, and kept clear to allow unhindered passage
- Motorized vehicles and mechanized equipment are inspected daily or prior to use
- Vehicles are shut off and brakes set prior to loading or unloading

- Containers, combustibles, or flammables are always separated by dunnage sufficient to provide stability when stacked, while being moved
- Dock boards (bridge plates) are used when loading or unloading operations take place between vehicles and docks
- Trucks and trailers are secured from movement during loading and unloading operations
- Dock plates and loading ramps are constructed and maintained with sufficient strength to support imposed loading
- Hand trucks are maintained in safe operating condition
- Chutes are equipped with sideboards of sufficient height to prevent materials being handled from falling off
- Chutes and gravity roller sections are firmly placed or secured to prevent displacement
- Provisions are made to brake the movement of handled materials at the delivery end of rollers or chutes
- Pallets are inspected before being loaded or moved
- Hooks with safety latches or other arrangements are used when hoisting materials so slings or load attachments don't accidentally slip off the hoist hooks
- Securing chains, ropes, chockers or slings are adequate for the job to be performed
- Provisions are made to ensure no one will pass under suspended loads when hoisting material or equipment
- Material SDSs are available to employees handling hazardous substances

#### CONTROL OF HARMFUL SUBSTANCES BY VENTILATION

- The volume and velocity of air in each exhaust system is sufficient to gather the dusts, fumes, mists, vapors, or gases to be controlled, and to convey them to a suitable point of disposal
- Exhaust inlets, ducts, and plenums are designed, constructed, and supported to prevent collapse or failure of any part of the system
- Clean-out ports or doors are provided at intervals not to exceed 12 feet in all horizontal runs of exhaust ducts
- Where two or more types of operations are being controlled through the same exhaust system, the combination of substances being controlled will **not** constitute a fire, explosion or chemical reaction hazard in the duct
- Adequate makeup air is provided to areas where exhaust systems are operating
- The intake for makeup air is located so only clean, fresh air, free of contaminants, will enter the work environment
- Where two or more ventilation systems are serving a work area, operations are such that one system will not offset the functions of the other

## EMERGENCY ACTION PLAN

- An emergency action plan is in place
- The emergency action plan complies with requirements of T8CCR 3220(a)
- Emergency escape procedures and routes are developed and communicated to all employees
- Employees who remain to operate critical plant operations before they evacuate know the proper procedures
- The employee alarm system that provides a warning for emergency action is recognizable and perceptible above ambient conditions
- Alarm systems are properly maintained and tested regularly
- The emergency action plan is reviewed and revised periodically
- Employees know their responsibilities for reporting emergencies, conduct during an emergency, for conducting rescue, and for medical duties

## INFECTION CONTROL

- Employees are not exposed to infectious agents in body fluids
- Occasions of potential occupational exposure have been identified and documented
- A training and information program has been provided for employees exposed to or potentially exposed to blood and/or body fluids
- Infection control procedures have been instituted
- Employees are aware of procedures for hand washing, handling sharp instruments, handling of laundry, disposal of contaminated materials, and reusable equipment
- PPE is provided to employees in all appropriate locations
- Necessary equipment is provided for administering mouth-to-mouth resuscitation on potentially infected patients
- Facilities/equipment comply with workplace practices for hand-washing, biohazard, needle containers, and detergents/disinfectants to clean up spills
- All equipment, and environmental and working surfaces, are cleaned and disinfected after contact with blood or potentially infectious materials
- Infectious waste is placed in closable, leak proof containers, bags or puncture-resistant holders with proper labels
- Medical surveillance including HBV evaluation, antibody testing and vaccination been made available to potentially exposed employees
- There is training on universal precautions and PPE
- There are Hepatitis B vaccinations

## ERGONOMICS

- Work can be performed without eyestrain or glare to the employees
- Tasks require prolonged raising of the arms
- Neck and shoulders have to be stooped to view the task
- Pressure points on any parts of the body (wrists, forearms, back of thighs)
- Work is done using the larger muscles of the body
- Work can be done without twisting or overly bending the lower back
- There are sufficient rest breaks, in addition to the regular rest breaks, to relieve stress from repetitive-motion tasks
- Tools, instruments and machinery are shaped, positioned and handled so tasks can be performed comfortably
- Furniture is adjusted, positioned and arranged to minimize strain on all parts of the body

## VENTILATION FOR INDOOR AIR QUALITY

- The HVAC system provides at least the minimum quantity of outdoor air required by the State Building Standards Code, Title 24, Part 2 at the time the building was constructed
- The HVAC system is inspected at least annually, and problems corrected
- Inspection records are retained for at least 5 years

## CRANE CHECKLIST

- Cranes are visually inspected for defective components prior to the beginning of any work shift
- All electrically operated cranes are effectively grounded
- A crane preventive maintenance program is established
- The load chart is clearly visible to the operator
- Operating controls are clearly identified
- A fire extinguisher is provided at the operator's station
- The rated capacity is visibly marked on each crane
- An audible warning device is mounted on each crane
- Sufficient illumination is provided for the operator to perform the work safely
- Cranes in which the boom could fall over backward are equipped with boomstops
- Each crane has a certificate indicating required testing and examinations have been performed
- Crane inspection and maintenance records are maintained and available for inspection