

# **A Guide for Developing A Workplace Safety And Health Program**

This can assist employers in evaluating workplace safety exposures. However, our evaluations may not include every potential of loss, code violation or exception to good business practice. Employee protection is ultimately the responsibility of the employer.

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## **About This Manual**

This manual has been adapted from a similar manual developed by the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, and by State Occupational Safety and Health Consultation programs to help employers provide better workplace protection for their employees and to reduce losses resulting from accidents and injuries.

Every employer has a legal obligation to provide and maintain a safe and healthful workplace for his or her employees, according to the Safety and Health Act of 1970.

This manual covers the basic things employers need to know about their responsibilities, and it outlines steps that can be taken to develop an effective safety and health program to assure the safety and health of employees on the job.

Employers who are developing safety and health programs will find this to be a useful guide. Republic Indemnity's Loss Control Consultants can also be of assistance.

Compliance with the guidelines on prompt and complete reporting of injuries (and full communication with the Claims Department), will help speed up benefit payments to injured employees, reducing litigation, and controlling workers' compensation insurance costs.

## **Introduction**

Taking risks is a part of running a business, particularly for small business owners. You take risks in product development, marketing, or advertising in order to stay competitive. But there are some risks that are just not worth the gamble. One of these is risking the safety and health of those who work for you.

### **Accidents Cost Money**

Employers, small business owners, and major corporations now realize that the actual cost of a lost workday injury is substantial. For every dollar you spend on the direct costs of a worker's injury or illness, you will spend much more to cover the indirect and hidden costs. Consider what one lost workday injury would cost you in terms of:

- productive time lost by an injured employee;
- productive time lost by employees and supervisors attending the accident victim;
- clean up and start up of operations interrupted by the accident;
- time to hire or to retrain other individuals to replace the injured worker until his/her return;
- time and cost for repair or replacement of any damaged equipment or materials;
- the cost of continuing all or part of the employee's wages, in addition to compensation;
- reduced morale among your workers, and perhaps lower efficiency;
- increased workers' compensation insurance rates; and
- the costs of completing the paperwork generated by the incident.

### **Controlling Losses**

If you would like to reduce the costs and risks associated with workplace injuries and illnesses, you need to address safety and health right along with production.

Developing and implementing a safety and health program can help you do this because, in developing the program, you identify what has to be done to protect your employees and your worksite, and outline policies and procedures to achieve your safety and health goals.

## Safety & Health Program, Legal Requirement

Every employer is required by law (Labor Code Section 6400) to provide a safe and healthful workplace for his/her employees. In addition, every employer is required by General Industry Safety Order (GISO) 3203,\* to have and maintain an effective occupational safety and health program:

GISO 3203 "Accident Prevention Program:

- (a) Every employer shall inaugurate and maintain an accident prevention program which shall include but not be limited to the following:
  - (1) A training program designed to instruct employees in general safe work practices plus specific instruction with regard to hazards unique to any job assignment.
  - (2) Scheduled periodic inspections to identify and correct any unsafe conditions and work practices which may be found."

**"instruct employees in general safe work practices"** means work practices that generally apply to most of the employees at the worksite. Examples of general work practices are: listing procedures, use of personal protective equipment, knowledge of exits, medical and first aid procedures, housekeeping practices, fire protection procedures, evacuation plans, or handling of flammables and toxic chemicals.

**"specific instruction with regard to hazards unique to any job assignment"** means training on the hazards and safe work practices specific to any individual employee's work assignment. Examples of specific instruction are: training in use of self-contained breathing apparatus, proper procedure for locking or blocking-out machinery, proper use and adjustment of machine guards, or handling of hazardous substances.

**"scheduled periodic inspections"** means inspections of the workplace at sufficient intervals to ensure that established safe work practices are being followed and that unsafe conditions or procedures are identified and corrected promptly. Frequency of inspections should be affected by the type, expectation, and magnitude of hazards involved, proficiency of employees, equipment of process changes, and injury/illness rates.

GISO 3203 covers the minimum acceptable elements for an accident prevention program. It was adopted because records show that a high percentage of occupational injuries and illnesses are preventable through effective education and training, plus periodic inspections of the workplace.

This manual describes how to build a safety and health program tailored to meet the specific features and needs of your workplace. Once this program is in place, you will have an effective tool for improving workplace operations, controlling hazards, reducing accidents and losses, increasing productivity, and complying with occupational safety and health regulations.

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\* Title 8 California Administrative Code (CAC). Additional requirements may also apply. See Construction Safety Order Section 1509, Title 8, CAC.

## What Is A Safety & Health Program?

A Safety and Health Program is a written plan, including procedures, which is put into practice.

These four elements are the building blocks of an effective program:

Management Commitment

Hazard Assessment and Control

Safety Planning, Rules, and Work Procedures

Safety and Health Training

The outline on pages 17 to 19 will help you formulate a plan for developing your program.

### Management Commitment

Your attitude toward safety and health shows in every decision you make and every action you take. Your employees respond to that attitude. You can demonstrate your commitment through your personal concern for employee safety and health and by the priority you place on safety and health issues.

If you want maximum production and quality control, you need methods to control potential hazards at your workplace and correct hazardous conditions or practices if they occur.

You need to commit yourself and your company to building an effective safety and health program into your whole operation. Back your commitment with strong organizational policies and procedures:

1. Workplace objectives for safety and health like those you set for other business functions such as sales or productivity. For example, you might have objectives such as "10 percent fewer injuries next year", or "Reduce downtime due to poorly maintained equipment".
2. Your staff has safety and health responsibilities as well as production responsibilities.
3. Your supervisors and employees know that they are accountable for their safety and health responsibilities, and will be rewarded for good performance. They are advised when any safety and health deficiencies exist and told how to correct them.
4. Company resources---financial, material and personnel---have been allocated for:
  - identifying and controlling hazards and potential hazards;
  - installing engineering controls;

- purchasing personal protective equipment; and
  - promoting and training employees about safety and health.
5. There are clear lines of communication for your employees to tell you of their safety and health concerns.
  6. Your employees know of your concern for safety and health because you:
    - include safety and health topics in meetings and conversations with employees;
    - encourage supervisors and employees to develop and display a positive attitude toward safety;
    - take any necessary corrective action after inspections, accidents, or in response to employee suggestions;
    - provide feedback on their safety concerns and performance; and
    - set a good example! If, for instance, you require hard hats to be worn in a specific area, then you and other management wear a hard hat in that area.

### **Hazard Assessment & Control**

Hazard assessment and control refers to your method of identifying existing or potential hazards in the workplace, and eliminating or controlling them. Hazard control is the heart of an effective safety and health program. If hazards occur (or recur), this reflects a breakdown in the hazard control system and, in turn, the safety and health program. The hazard control system also is the basis for developing safe work procedures and safety, and health training.

The hazard control system should be established as the result of a comprehensive safety and health survey conducted by a qualified person(s) in your company or by qualified outside consultants.

This will provide knowledge of hazards that exist in the workplace and conditions, equipment, and procedures which could be potentially hazardous.

In general, a hazard control system will tell you what (if any) hazards exist in your workplace, how to correct hazards that may occur, and steps you can take to prevent them from recurring. If you have an effective system for monitoring workplace conditions:

1. You are able to prevent many hazards from occurring through regular self-inspections---walk through your workplace at regular intervals to make sure that established safe work practices are being followed and that unsafe conditions or procedures are identified and corrected properly. These inspections are in addition to the everyday safety and health checks that are part of the routine duties of the managers.

The frequency of these inspections depends on the operations involved, the magnitude of the hazards, the proficiency of employees, changes in equipment or work processes, and the history of workplace injuries and illnesses. Inspections are conducted by managers or supervisors and employees who, through experience or training, are able to identify actual and potential hazards, and who understand safe work practices. It is important to be able to recognize potential health hazards so you can arrange for sampling and analysis to determine if a hazard exists. (See the Self-Inspection Check Lists starting on page 22.)

Know which standards apply to your workplace and use them to identify potential hazards. A Republic Indemnity Loss Control Consultant can assist you in identifying standards which are applicable to your work.

2. Your employees know to tell you or their supervisors of possible hazardous situations and they know that their reports will be given prompt and serious attention. When you, in turn, let them know that the situation was corrected (or why it was not hazardous), you create a system where your employees will continue to report hazards promptly and effectively.
3. Workplace equipment is maintained in safe and good working condition. In addition to what is required by the standards, your own program monitors the operation of workplace equipment and makes sure that routine preventive maintenance is conducted. This makes good safety sense, and proper maintenance can prevent costly breakdown.
4. You have established procedures to investigate any workplace accidents or near-miss incidents and reported injuries and illnesses. This helps you identify the causes and needed corrections, and can help you determine why accidents occur, where they happen, and any accident trends. Such information is critical in preventing and controlling hazards and future accidents.
5. Hazards are corrected as soon as they are identified. For any that can not be immediately corrected, you set a target date for correction based on such considerations as the probability and severity of an injury or illness resulting from the hazard, the availability of needed equipment, materials and/or personnel, time for delivery, installation, modification or construction, or training periods. Interim protection is provided to employees who need it while correction of hazards is proceeding. A written tracking system such as a log helps you monitor the progress of hazard correction.

### **Safety Planning, Rules And Work Procedures**

Planning for safety and health is an important part of your job as a manager. Safety and health should be part of every business decision, including purchasing, engineering, changes in work processes, and planning for emergencies that could arise. Planning for safety and health includes the development of general rules for safe conduct, procedures for doing specific jobs safely, and a system for enforcing safety and health rules. Your safety and health planning is effective when your workplace has:

1. General safety and health rules which are written and apply to everyone, such as personal protective equipment requirements, clothing appropriate for the job, behavior expected of all

employees, or emergency exit procedures, and how to follow them safely. You and your employees review and update all rules periodically to make sure they reflect present conditions. If conditions exist for which there are no rules, new ones are made. Those no longer applicable are dropped.

2. Safe and healthful work practices which have been developed for each specific job your employees do. These procedures are not necessarily complicated but they do protect against any hazards that are part of the tasks the workers perform. Workers in surrounding areas also benefit from the safe work procedures their co-workers use.
3. Disciplinary procedures which help make sure that your safety rules and work procedures are put into practice and enforced. Your company's disciplinary procedures ensure that violations of the rules are dealt with fairly but firmly, and that all employees are aware of these procedures. You provide reorientation or retraining when it is needed, and a system of rewards to reinforce good safety performance.
4. A written plan for what you and your employees will do in case of an emergency. Some emergency procedures, such as procedures for medical emergencies or fire evacuation, are mandated by State and Federal regulations.

In your plan, you have prepared a list of emergencies which could arise, and mapped out a set of procedures in response to each situation. You know in advance who will do what, and your employees have been trained on what they should do.

### **Safety & Health Training**

This aspect of your program brings new ideas into the workplace, or re-establishes existing ideas and practices, and puts the other three elements of your program into action.

Your employees benefit from safety and health training through fewer work-related injuries and illnesses, reduced stress and worry caused by exposure to hazards and, in some cases, material gains from incentive awards (both production incentives and safety awards). You benefit from reduced workplace injuries and illnesses, increased productivity, lower costs, higher profits, and a more cohesive and dependable work force.

An effective safety and health program includes training for both supervisors and employees. At first you may need outside professionals such as Republic Indemnity's Loss Control consultants or factory representatives to help you conduct the training. Eventually, you should develop your own in-house training capabilities so that you can provide training specific to the needs of your workplace and your employees. Your training efforts are successful when:

1. Your supervisors know:
  - That they are key figures in the implementation and overall success of your safety and health program.

- The importance of establishing and maintaining safe and healthful working conditions.
- The hazards associated with each job: how to recognize them, their potential effect on the employees, and the rules, procedures, and work practices for controlling exposure to those hazards.
- How to relate this information to employees by setting good examples and instructing them in, and making sure that they understand and follow safe procedures.
- How to investigate accidents and how to take corrective and preventive action.

2. Your employees know:

- That the success of the company's safety and health program depends on their actions as well as yours.
- The safe work procedures for their jobs and how these procedures protect against exposure to hazards.
- When personal protective equipment (PPE) is required or needed, how to use it, and how to maintain it in good condition.
- What to do in case of an emergency that may occur in the workplace.

An effective safety and health program requires proper job performance from everyone in the workplace.

As the employer, you must ensure that all employees know about the materials and equipment they are working with, what known hazards are present, and how you have controlled or intend to eliminate them.

Each individual employee needs to know and understand the following (especially if he/she has been included in your safety and health policy or in a "code of safe practices"):

- No employee is expected to undertake a job until he/she has received instructions on how to do it properly and has been authorized to perform the job.
- No employee should undertake a job that appears to be unsafe or use chemicals without understanding their toxic properties.
- Mechanical safeguards must be in place and kept in place.
- Each employee is expected to report to you all unsafe conditions encountered during work.

- Any injury or illness suffered by an employee, even a slight one, must be reported to you at once.

In addition to the above, any safety rules that are a condition of employment, such as the use of safety shoes or eye protection, should be explained clearly and enforced.

Your supervisors must know how to train their employees in the proper way of doing their jobs. Encourage and consider providing your supervisors with supervisory training. (Many community colleges offer management training courses at little or no cost.)

In addition, there are some specific training requirements in the OSHA standards which you must meet. A Republic Indemnity Loss Control consultant can advise you on these training requirements.

Particular attention must be given to your new employees. If you train them during the first few hours and days to do things the right way, you may avoid considerable losses over a period of time.

At the same time, pay attention to your regular employees, including the old-timers. Old habits can be wrong habits. An employee who continues to repeat an unsafe procedure is not working safely, even if an accident has not resulted from this condition.

Here are some less specific indicators which might show a need for training or retraining:

- Excessive waste or scrap;
- High labor turnover;
- An increase in the number of "near misses" which could have resulted in injuries or illnesses;
- A recent upswing in your actual accident experience;
- High injury or illness incidence;
- Expansion of operations or new employment;
- A change in your process or a new process with new equipment;
- Employee requests for ear plugs, respirators or other protective devices; and
- Repeated questioning by employees seeking answers which may seem obvious to you.

By incorporating the four elements of (1) Management Commitment, (2) Hazard Assessment and Control, (3) Safety Planning, Rules and Work Procedures, and (4) Training into your program and adapting them to the changing work environment, you can develop and implement an effective safety and health program.

## **Establishing A Safety & Health Program**

Put these elements together and come up with a plan to suit your workplace.

Decide exactly what you want to accomplish, and determine what steps are necessary to achieve your goals. Then plan how and when each step will be done, who will do it, and put this plan in writing.

In developing the plan, consider your company's immediate needs and provide for ongoing worker protection.

If you have difficulty in deciding where to begin, call your insurance company's Loss Control department. A Loss Control consultant will help you determine what is needed to make your safety and health program effective. The Loss Control consultant will work with you to develop a plan for making these improvements, and to establish procedures for making sure that your program stays effective.

The following sections describe the process that you might go through in establishing a safety and health program. Remember that you do not have to do everything described in this manual at once.

### **Assign Responsibilities**

Decide who in your company is the appropriate person to manage this program. Who can make sure that the safety and health program becomes an integral part of the business? In many cases, it is the owner. Sometimes the plant manager or a ranking member of the management team would be the one to develop and implement the program. It could even be an engineer, personnel specialist, or other staff member.

The success of your program hinges on the individual you choose, and he or she cannot succeed without your full cooperation and support.

Remember, though, that even when you appoint someone as your safety manager and delegate the authority to manage the program, the ultimate responsibility for safety and health in your workplace still rests on you.

And, when considering responsibility, do not forget to include all of your employees. Give each employee training and responsibility to follow your safety and health procedures and to recognize and report hazards in his/her immediate work area. Also, inform each employee of his/her responsibility under Labor Code Section 6407, with occupational safety and health standards applicable to their own actions and conduct.

### **Look At What You Have**

Before you make any changes in your safety and health operations, gather as much information as possible about the current conditions at your workplace and about business practices that are already part of your safety and health program. This information can help you identify any workplace problems and see what is involved in solving them.

The assessment of your workplace should be conducted by the person responsible for the safety and health program and/or occupational safety and health consultant. This assessment consists of two major activities:

The first is a comprehensive safety and health survey of your facility, designed to identify any existing or potential safety and health hazards. This initial survey should focus on evaluating workplace conditions with respect to safety and health regulations and generally-recognized safe and healthful work practices, checking on the use of any hazardous materials, observing employee work habits and practices, and discussing safety and health problems with employees.

On page 22 you will find checklists designed to assist you in this fact finding.

### **The Survey Should Include :**

1. Equipment--Make a list of your major equipment, your major operations, and the principal locations of each. Special attention should be given to inspection schedules, maintenance activities, and your facility's layout.
2. Chemicals--Make a list of all the chemicals used in your workplace, obtain material safety data sheets on all the materials used, and learn about the toxic properties of the chemicals.

Make sure that you have available those standards applicable to your type of operations, equipment, processes, materials, etc. These standards should be the base line for your own self-inspections and are useful in determining what specific changes need to be made when hazards are identified. Most places of employment come under the General Industry Safety Orders. However, if you are involved with construction or another specialized industry, you will need the standards which apply to that industry as well.

The second major activity in assessing your workplace is an evaluation of your existing safety and health program to identify areas that may be working well, and those that may need improvement.

### **Examine Your Company's:**

1. Accident, injury or illness data;
2. Workers' compensation costs;
3. Rates of employee turnover or absenteeism;
4. Information on safety and health activities on-going or previously tried;
5. Company policy statements;
6. Rules (both work and safety);
7. Guidelines for proper work practices and procedures;
8. Records of training programs; and
9. Compliance with the requirements of the Right To Know Law and Hazard Communication Standard.
10. Employee capabilities--List all employees, showing the dates they were hired, what their jobs are, and what experience and training they have had. Special attention should be given to new employees and employees with handicaps.

11. Joint labor-management safety and health committee activities.
12. Other employee involvement programs.

After all the facts have been gathered, look at how the information in your workplace corresponds with the four critical components of a safety and health program: management commitment, hazard assessment and control procedures, safety planning, rules and work procedures, and safety and health training programs. You may find that you are already well on your way toward having a good safety and health program.

### **Develop An Action Plan**

An action plan is a specific written description of problems and solutions. It can and should be changed to correspond with changes in the workplace.

A good action plan has two parts. One is an overall list of the major changes or improvements that are needed to make your safety and health program effective. Assign each item a priority and a target date for completion, and identify the person who will monitor or direct each action.

The second part of an action plan involves taking each major change or improvement listed and working out a specific plan for making that change. Write out what you want to accomplish, the steps required, who would be assigned to do what, and when you plan to be finished. This part of the action plan helps you keep track of program improvements so that details do not slip through the cracks. Worksheets that may help you design an overall action plan and describe specific action steps appear on pages 20 and 21 of this manual.

### **Take Action**

Put your plan into action with the item that has been assigned the highest priority. Make sure it is realistic and manageable, then address the steps that you have written out for that item.

You can, of course, work on more than one item at a time. The priorities may change as other needs are identified or as your company's resources change.

Open communication with your employees is crucial to the success of your efforts. Their cooperation depends on understanding what the safety and health program is all about, why it is important to them, and how it affects their work. The more you do to keep them informed of the changes you are making, the smoother your transition will be. By putting your action plan into operation at your workplace, you will have taken a major step toward having an effective safety and health program. Remember, a safety and health program is a plan put into practice.

### **Review Your Progress**

Every so often, (quarterly, semi-annually or annually) take a careful look at each critical component in your safety and health program to determine what is working well and what changes are needed. When you identify improvements that should be made, you have the basis for new safety and health objectives for the coming year.

## **Safety & Health Record Keeping**

No operation can be successful without adequate recordkeeping. Recordkeeping enables you to learn from past experience and to make corrections for future operations. Records of accidents, related injuries, illnesses and property losses can serve the same purpose, if they are used the same way. Under OSHA recordkeeping requirements, information is gathered and stored concerning accidents that have happened. When the facts have been determined, causes can often be identified and control procedures instituted to prevent a similar illness or injury from happening again.

### **Importance of Prompt & Complete Reporting**

California Labor Code #6409 requires an employer to file a report using the "Employer's Report of Occupational Injury or Illness (FORM 5020) within five days of knowledge of employee's injury, on every industrial injury or occupational disease which:

- a) Results in lost time beyond the day of injury, or
- b) Requires medical treatment other than first aid.

It is also mandatory that the employee report form "Employee's Claim for Workers' Compensation Benefits (DWC Form 1), be given to your employee within 24 hours of knowledge of injury. If the form is completed immediately after the injury, you may submit it with your Employer's report. If not, please do not delay sending an Employer's report. When you receive the Employee's report you should immediately send it to the insurance company.

The requirement to report work-connected injuries within eight hours, revised Title 8 §342(1), became effective on September 1, 1996.

Subsection (a) was modified to require every employer to report any serious injury or illness or death of an employee that is work related to the nearest district office of the Division of Occupational Safety and Health "immediately." Immediately now means within not longer than 8 hours of the employer's knowledge. However, "if the employer can demonstrate that exigent circumstances exist, the time frame for the report may be made no longer than 24 hours after the incident."

It is important to keep records of when the employee claim form is given out. An "Employee Notice of Injury Log (OSHA 200 log)" should be maintained to record the following items: employee name, date of injury, date employee notified employer, date employee form given to employee, date employee returned form to employer, whether the employee is seeking medical treatment, treating doctor or clinic, name of hospital (if hospitalized), and date the employee report is sent to insurance carrier.

The informational brochure "Facts For Injured Workers" must be given to the injured worker within five days of knowledge of the injury. It gives a more comprehensive overview of the California law.

In addition to these legal requirements, there are many practical reasons why prompt reporting makes good sense. It is important to set up an effective procedure to ensure that when an employee is injured, proper steps are followed. Prior to the injury, arrangements should be made with a local industrial clinic or emergency hospital. And, your employees should be advised as to your reporting and recordkeeping procedures.

It is our goal to see that your employees receive the best possible treatment, so as to return them to the job in the shortest possible time. To this end, we use the finest medical specialists available, but in order that your employees may have the full benefit of their care, it is necessary that our claims examiners be promptly notified. This is also necessary so that we may deliver compensation checks promptly, removing an obvious motivation to your employees to seek legal assistance.

### **Injury & Illness Records**

The injury and illness recordkeeping requirements under OSHA require a minimum amount of paperwork.

These records will provide you with one measure for evaluating the success of your safety and health activities: success would generally mean a lack of, or a reduced number of, employee injuries or illnesses during a calendar year.

There are five important steps required by the OSHA recordkeeping system:

1. Obtain a report on every injury or illness requiring medical treatment. The "Supervisor's Report of Accident" booklets may be utilized for this purpose.
2. Record each injury or illness on the OSHA Log and Summary of Occupational Injuries and Illnesses (200 log), according to the instructions provided.
3. Prepare a supplementary record of occupational injuries and illnesses on recordable cases. The Employer's First Report of Injury Form #5020 fulfills this requirement. A copy of every report should be filed with your OSHA log.
4. A copy of the 200 log totals and information following the fold line of the last page for the year must be posted at each establishment in the place(s) where notices to employees are customarily posted. This copy must be posted no later than **February 1 and must remain in place until March 1**.
5. Maintain the last five years of these records in your files.

During the year, periodically review these records to see where your injuries and illnesses are occurring and in what numbers. Look for any patterns or repeat situations. These records can help you identify hazardous areas in your workplace and pinpoint where immediate corrective action is needed.

### **Exposure Records**

The injury and illness records may not be the only records you will need to maintain. Certain OSHA standards and General Industry Safety Orders which deal with toxic substances and hazardous exposures require records of employee exposure to these substances and sources, physical examination reports, employment records, etc.

Employers using any of the regulated carcinogens have additional reporting and recordkeeping requirements. See Title 8 of the California Administrative Code for detailed requirements.

### **Documentation Of Your Activities**

Essential records, including those legally required for workers' compensation, insurance audits, and government inspections must be maintained for as long as the actual need exists. Keeping written records of your activities such as policy statements, training sessions for management and employees, safety and health meetings held, information distributed to employees, medical arrangements made, etc., is strongly recommended. These records will also afford an efficient means for reviewing your current safety and health activities for better control of your operations, and to plan future improvements.

## Sources Of Information And Help

### Fellow Business People

One of the best sources for information and assistance is your fellow business people. It is likely that businesses similar to yours have encountered similar problems. It is also possible that at least one of them has found a simple, efficient solution. Most managers are willing to share information in the area of safety and health.

- Most equipment manufacturers have become quite concerned with safety in the use of their products. In order to help their customers and potential customers, and to minimize their liability in the event of adverse legal action, they are more than willing to furnish advice and engineering information to enhance safe operation of their equipment.
- Many trade associations and employer groups emphasize safety and health matters to better serve their members. If you are a member of such a group, find out what it is doing to assist its members. If you are not a member, find out if these groups are circulating their materials to non-members, as many do.
- If your employees are organized by a union, coordinate with their unions and take joint action to solve problems and correct hazards. Many trade unions have safety and health expertise they are willing to share.
- The National Safety Council has a broad range of information services available. If there is a local chapter, call or visit to obtain material pertaining to your business. If a local chapter is not nearby, you can write to:

National Safety Council  
425 North Michigan Avenue  
Chicago, IL 60611

- The yellow pages of your telephone directory list many companies which specialize in items and services relating to safety, health, and fire prevention. Most of them have extensive experience and knowledge in safety-related subjects, and are willing to furnish information and advice to you.

## **Suggested Outline For A Safety & Health Plan**

### **I. Management Commitment**

#### **A. Policy Statement**

May include safety and health goals

Illustrates management involvement in workplace safety and health

#### **B. Objectives for the Safety and Health Program**

Based on the priorities of your workplace

Should be measurable with time frames for completion

#### **C. Assignment of Responsibility for Safety and Health**

Descriptions of duties

Policy on accountability

### **II. Hazard Assessment and Control**

#### **A. Hazard Assessment and Correction**

Initial survey by your insurer's loss control consultant or other professional safety consultant

Periodic surveys and sampling

Employee reporting of hazards

Tracking of identified hazards and their correction

#### **B. Accident Investigation**

Identification of causes and their correction

Preventative actions

Monitoring workplace injuries and illness

- C. Record Keeping
    - OSHA 200 (Log and Summary of Occupational Injuries and Illnesses)
    - Material Safety Data Sheets
    - Employee access to personal medical and exposure records
    - Other required or appropriate records
  - D. Equipment Monitoring and Maintenance Program
    - Production equipment
    - Personal protective equipment
- III. Safety Planning, Rules and Work Procedures
- A. Control of Potential Hazards
    - With regard to equipment design, purchasing, engineering, maintenance and production
  - B. Safety Rules
    - General
    - Specific to tasks, based on safe work procedures
    - System for informing employees
  - C. Work Procedures
    - Analysis of tasks to develop safe work procedures
    - Implementation
  - D. Employee Involvement
    - Reporting hazards
    - Enforcement of Rules
    - Disciplinary procedures and reorientation

E. Emergency Procedures

First aid

Emergency medical

Fire, egress

IV. Safety and Health Training (Initial and Refresher)

A. Supervisors

Safety and health policy, rules, and procedures

Hazards of the workplace and how they are best controlled

Accident Investigation

B. Employees

New employee safety orientation

General and specific rules

Use of personal protective equipment

Preparation for emergencies

Training required by OSHA standards

Safe work procedures

### Overall Action Plan

#### Major Action Steps to be Taken

Major Action Steps to be Taken	Priority (Assign Each Step a Number)	Projected Completion Date	Actual Completion Date
1. _____ _____	_____	_____	_____
2. _____ _____	_____	_____	_____
3. _____ _____	_____	_____	_____
4. _____ _____	_____	_____	_____
5. _____ _____	_____	_____	_____
6. _____ _____	_____	_____	_____
7. _____ _____	_____	_____	_____
8. _____ _____	_____	_____	_____
9. _____ _____	_____	_____	_____
10. _____ _____	_____	_____	_____

**Action Step #** \_\_\_\_\_

**Description of Action Steps to be Taken:** \_\_\_\_\_

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<b>Specific Steps Required</b>	<b>Persons Assigned</b>	<b>Projected Completion Date</b>	<b>Problems/ Delays Encountered</b>	<b>Actual Completion Date</b>
1. _____ _____ _____ _____	_____	_____	_____	_____
2. _____ _____ _____ _____	_____	_____	_____	_____
3. _____ _____ _____ _____	_____	_____	_____	_____
4. _____ _____ _____ _____	_____	_____	_____	_____

## Self-Inspection Check Lists

These checklists are by no means all-inclusive. You should add to them or delete portions or items that do not apply to your operations. However, carefully consider each item as you come to it and then make your decision.

### Employer Posting

- Is the OSHA Poster "Safety and Health Protection on the Job" displayed in a prominent location where all employees are likely to see it?
- Are emergency telephone numbers posted where they can be readily found in case of emergency?
- Where employees may be exposed to any toxic substances or harmful physical agents, has appropriate information concerning employee access to medical and exposure records, and "Material Safety Data Sheets", etc., been posted or otherwise made readily available to affected employees?
- Are signs concerning: Exiting from buildings, room capacities, floor loading, exposures to x-ray, microwave, or other harmful radiation or substances, posted where appropriate?
- Are other California posters properly displayed, such as:

Workers' Compensation Statutory Posting Notice, Industrial Welfare Commission orders regulating wages, hours, and working conditions, Discrimination in employment prohibited by law? Notice to employees of unemployment and disability insurance, Payday Notice, and summary of occupational injuries and illnesses (200 log) posted in February 1?

### Record Keeping

- Are all occupational injuries or illnesses (except minor injuries requiring only first aid) being recorded as required on the OSHA Form 200?
- Are employee medical records and records of employee exposure to hazardous substances or harmful physical agents up-to-date?
- Have arrangements been made to maintain required records for the legal period of time for each specific type record? (Some records must be maintained for at least 40 years.)
- Are operating permits and records up-to-date for such items as elevators, air pressure tanks, liquified petroleum gas tanks, etc.?

**Safety & Health Program**

- Do you have an active safety and health program in operation?
- Is one person clearly responsible for the overall activities of the safety and health program?
- Do you have a safety committee or group made up of management and labor representatives that meet regularly and report in writing on its activities?
- Do you have a working procedure for handling in-house employee complaints regarding safety and health?
- Are you keeping your employees advised of the successful effort and accomplishments you and/or your safety committee have made in assuring they will have a workplace that is safe and healthful?

**Medical Services & First Aid**

- Do you require each employee to have a pre-employment physical examination?
- Is there a hospital, clinic, or infirmary for medical care in proximity of your workplace?
- If medical and first aid facilities are not in proximity of your workplace, is at least one employee on each shift currently qualified to render first aid?
- Are medical personnel readily available for advice and consultation on matters of employees' health?
- Are emergency phone numbers posted?
- Are first aid kits easily accessible to each work area, with necessary supplies available, periodically inspected, and replenished as needed?
- Have first aid kit supplies been approved by a physician, indicating that they are adequate for a particular area or operation?
- Are means provided for quick drenching or flushing of the eyes and body in areas where corrosive liquids or materials are handled?

**Fire Protection**

- Is your local fire department well acquainted with your facilities, its location and specific hazards?
- If you have a fire alarm system, is it certified as required?
- If you have a fire alarm system, is it tested at least annually?
- If you have interior stand pipes and valves, are they inspected regularly?
- If you have outside private fire hydrants, are they flushed at least once a year and on a routine preventive maintenance schedule?
- Are fire doors and shutters in good operating condition?
- Are fire doors and shutters unobstructed and protected against obstructions, including their counterweights?
- Are fire door and shutter fusible links in place?
- Are automatic sprinkler system water control valves, air and water pressures checked weekly/periodically as required?
- Is the maintenance of automatic sprinkler systems assigned to responsible persons or to a sprinkler contractor?
- Are sprinkler heads protected by metal guards, when exposed to physical damage?
- Is proper clearance maintained below sprinkler heads?
- Are portable fire extinguishers provided in adequate number and type?
- Are fire extinguishers mounted in readily accessible locations?
- Are fire extinguishers recharged regularly and noted on the inspection tag?
- Are employees periodically instructed in the use of extinguishers and fire protection procedures?

## Personal Protective Equipment

- Are protective goggles or face shields provided and worn where there is any danger of flying particles or corrosive materials?
- Is combustible scrap, debris, and waste stored safely and removed from the worksite promptly?
- Are approved safety glasses required to be worn at all times in areas where there is a risk of eye injuries such as punctures, abrasions, contusions or burns?
- Are employees who need corrective lenses (glasses or contacts) in working environments having harmful exposures, required to wear only approved safety glasses, protective goggles, or use other medically approved precautionary procedures?
- Are protective gloves, aprons, shields, or other means provided against cuts, corrosive liquids and chemicals?
- Are hard hats provided and worn where danger of falling objects exists?
- Are hard hats inspected periodically for damage to the shell and suspension system?
- Is appropriate foot protection required where there is the risk of foot injuries from hot, corrosive, poisonous substances, falling objects, crushing or penetrating actions?
- Are approved respirators provided for regular or emergency use where needed?
- Is all protective equipment maintained in a sanitary condition and ready for use?
- Do you have eye-wash facilities and a quick "Drench Shower" within the work area where employees are exposed to injurious corrosive materials?
- Where special equipment is needed for electrical workers, is it available?
- When lunches are eaten on the premises, are they eaten in areas where there is no exposure to toxic materials or other health hazards?
- Is protection against the effects of occupational noise exposure provided when sound levels exceed those of the OSHA noise standard?
- Are adequate work procedures, protective clothing and equipment provided and used when cleaning up spilled toxic or otherwise hazardous materials or liquids?

## **General Work Environment**

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

**Walkways**

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

## **Floor & Wall Openings**

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

## Stairs & Stairways

- Are standard stair rails or handrails on all stairways having four or more risers?
- Are all stairways at least 22 inches wide?
- Do stairs have at least a 6 foot 6 inch overhead clearance?
- Do stairs angle no more than 50 degrees and no less than 30 degrees?
- Are stairs of hollow-pan type treads and landings properly filled to nosing level with solid material?
- Are step risers on stairs uniform from top to bottom, with no riser spacing greater than 7 1/2 inches?
- Are steps on stairs and stairways designed or provided with a surface that renders them slip resistant?
- Are stairway handrails located between 30 and 34 inches above the leading edge of stair treads?
- Do stairway handrails have at least 1 1/2 inches of clearance between the handrails and the wall or surface they are mounted on?
- Are stairway handrails capable of withstanding a load of 200 pounds applied in any direction?
- Where stairs or stairways exit directly into any area where vehicles may be operated, are adequate barriers and warnings provided to prevent employees stepping into the path of traffic?
- Do stairway landings have a dimension measured in the direction of travel at least equal to the width of the stairway?
- Is the vertical distance between stairway landings limited to 12 feet or less?
- Is a stairway provided to the roof of each building, four or more stories in height, provided the roof slope is 4 in 12 or less?

**Elevated Surfaces**

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

**Exiting Or Egress**

- Are all exits marked with an exit sign and illuminated by a reliable light source?
- Are the directions to exits, when not immediately apparent, marked with visible signs?
- Are doors, passageways or stairways, that are neither exits nor access to exits and which could be mistaken for exits, appropriately marked "NOT AN EXIT," "TO BASEMENT," "STOREROOM," etc.?
- Are exit signs provided with the word "EXIT" in lettering at least five inches high and the stroke of the lettering at least one half inch wide?
- Are exit doors side-hinged?
- Are all exits kept free of obstructions?
- Are at least two means of egress provided from elevated platforms, pits or rooms where the absence of a second exit would increase the risk of injury from hot, poisonous, corrosive, suffocating, flammable, or explosive substances?
- Are there sufficient exits to permit prompt escape in case of emergency?
- Are special precautions taken to protect employees during construction and repair operations?

- Is the number of exits from each floor of a building and the number of exits from the building itself, appropriate for the building occupancy load?
- Are exit stairways, which are required to be separated from other parts of a building, enclosed by at least two hour fire-resistive construction in buildings more than four stories in height, and not less than one hour fire resistive construction elsewhere?
- When ramps are used as part of required exiting from a building, is the ramp slope limited to one foot vertical and 12 feet horizontal?
- Where exiting will be through frameless glass doors, glass exit doors, storm doors, etc., are the doors fully tempered and meet the safety requirements for human impact?

### **Exit Doors**

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

## Portable Ladders

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

## **Hand Tools & Equipment**

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

**Portable (Power Operated) Tools & Equipment**

- Are grinders, saws and similar equipment provided with appropriate safety guards?
- Are power tools used with the correct shield, guard, or attachment recommended by the manufacturer?
- Are portable circular saws equipped with guards above and below the base shoe?
- Are circular saw guards checked to assure they are not wedged up, thus leaving the lower portion of the blade unguarded?
- Are rotating or moving parts of equipment guarded to prevent physical contact?
- Are effective guards in place over belts, pulleys, chains, and sprockets on equipment such as concrete mixers, air compressors, etc.?
- Are portable fans provided with full guards or screens having openings 1/2 inch or less?

**Abrasive Wheel Equipment/Grinders**

- Is the workrest used and kept adjusted to within 1/8 inch of the wheel?
- Is the adjustable tongue on the top side of the grinder used and kept adjusted to within 1/4 inch of the wheel?
- Do side guards cover the spindle, nut, and flange and 75 percent of the wheel diameter?
- Are bench and pedestal grinders permanently mounted?
- Are goggles or face shields always worn when grinding?
- Is the maximum RPM rating of each abrasive wheel comparable with RPM rating of the grinder motor?
- Are fixed or permanently mounted grinders connected to their electrical supply system with metallic conduit or other permanent wiring method?
- Does each grinder have an individual on and off control switch?
- Is each electrically operated grinder effectively grounded?
- Before new abrasive wheels are mounted, are they visually inspected and ring tested?

- Are dust collectors and powered exhausts provided on grinders used in operations that produce large amounts of dust?
- Are splash guards mounted on grinders that use coolant to prevent the coolant reaching employees?
- Is cleanliness maintained around grinders?

### **Powder Actuated Tools**

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

### **Machine Guarding**

- Is there a training program to instruct employees on safe methods of machine operation?
- Is there adequate supervision to ensure that employees are following safe machine operating procedures?
- Is there a regular program of safety inspection of machinery and equipment?
- Is all machinery and equipment kept clean and properly maintained?
- Is sufficient clearance provided around and between machines to allow for safe operations, set up and servicing, material handling, and waste removal?
- Is equipment and machinery securely placed and anchored, when necessary, to prevent tipping or other movement that could result in personal injury?

- Is there a power shut-off switch within reach of the operator's position at each machine?
- Can electric power to each machine be locked out for maintenance, repair, or security?
- Are the noncurrent-carrying metal parts of electrically operated machines bonded and grounded?
- Are foot-operated switches guarded or arranged to prevent accidental actuation by personnel or falling objects?
- Are manually operated valves and switches controlling the operation of equipment and machines clearly identified and readily accessible?
- Are all emergency stop buttons colored red?
- Are all pulleys and belts that are within seven feet of the floor or working level properly guarded?
- Are all moving chains and gears properly guarded?
- Are splash guards mounted on machines that use coolant to prevent the coolant from reaching employees?
- Are methods provided to protect the operator and other employees in the machine area from hazards created at the point of operation, in-going nip points, rotating parts, flying chips, and sparks?
- Are machinery guards secure and so arranged that they do not offer a hazard in their use?
- If special hand tools are used for placing and removing material, do they protect the operator's hands?
- Are revolving drums, barrels, and containers required to be guarded by an enclosure that is interlocked with the drive mechanism so that revolution cannot occur unless the guard enclosure is in place, so guarded?
- Do arbors and mandrels have firm and secure bearings and are they free from play?
- Are provisions made to prevent machines from automatically starting when power is restored after a power failure or shutdown?
- Are machines constructed so as to be free from excessive vibration when the largest size tool is mounted and run at full speed?
- If machinery is cleaned with compressed air, is air pressure controlled and personal protective equipment or other safeguards utilized to protect operators and other workers from eye and body injury?

- Are fan blades, operating within seven feet of the floor, protected with a guard having openings no larger than 1/2 inch?
- Are saws used for ripping, equipped with antikick back devices and spreaders?
- Are radial arm-saws so arranged that the cutting head will gently return to the back of the table when released?

### **Lockout Blockout Procedures**

- Is all machinery or equipment capable of movement, required to be de-energized or disengaged and blocked or locked-out during cleaning, servicing, adjusting or setting up operations, whenever required?
- Where the power disconnecting means for equipment does not also disconnect the electrical control circuit:

Are the appropriate electrical enclosures identified?

Is means provided to assure the control circuit can also be disconnected and locked-out?

- Is the locking-out of control circuits, in lieu of locking-out main power disconnects, prohibited?
- Are all equipment control valve handles provided with a means for locking-out?
- Does the lock-out procedure require that stored energy (mechanical, hydraulic, air, etc.) be released or blocked before equipment is locked-out for repairs?
- Are appropriate employees provided with individually keyed personal safety locks?
- Are employees required to keep personal control of their key(s) while they have safety locks in use?
- Is it required that only the employee exposed to the hazard should place or remove the safety lock?
- Are employees instructed to always push the control circuit stop button prior to re-energizing the main power switch?
- Is there a means provided to identify any or all employees who are working on locked-out equipment by their locks or accompanying tags?

- Are a sufficient number of accident preventive signs or tags and safety padlocks provided for any reasonably foreseeable repair emergency?
- When machine operations, configuration, or size requires the operator to leave his/her control station to install tools or perform other operations, and that part of the machine could move if accidentally activated, is such element required to be separately locked or blocked out?
- In the event that equipment or lines cannot be shut down, locked-out and tagged, is a safe job procedure established and rigidly followed?

### **Welding, Cutting And Brazing**

- Are only authorized and trained personnel permitted to use welding, cutting, or brazing equipment?
- Does each operator have a copy of the appropriate operating instructions and are they directed to follow them?
- Are compressed gas cylinders regularly examined for obvious signs of defects, deep rusting, or leakage?
- Is care used in handling and storage of cylinders, safety valves, relief valves, etc., to prevent damage?
- Are precautions taken to prevent the mixture of air or oxygen with flammable gases, except at a burner or in a standard torch?
- Are only approved apparatus (torches, regulators, pressure-reducing valves, acetylene generators, manifolds) used?
- Are cylinders kept away from sources of heat?
- Are the cylinders kept away from elevators, stairs, or gangways?
- Is it prohibited to use cylinders as rollers or supports?
- Are empty cylinders appropriately marked and their valves closed?
- Are signs reading: DANGER -- NO SMOKING, MATCHES, OR OPEN LIGHTS, or the equivalent, posted?
- Are cylinders, cylinder valves, couplings, regulators, hoses, and apparatus kept free of oily or greasy substances?
- Is care taken not to drop or strike cylinders?

- Unless secured on special trucks, are regulators removed and valve-protection caps put in place before moving cylinders?
- Do cylinders without fixed hand wheels have keys, handles, or non-adjustable wrenches on stem-valves when in service?
- Are liquefied gases stored and shipped valve-end up with valve covers in place?
- Are provisions made to never crack a fuel-gas cylinder-valve near sources of ignition?
- Before a regulator is removed, is the valve closed and gas released from the regulator?
- Is red used to identify the acetylene (and other fuel-gas) hose, green for oxygen hose, and black for inert gas and air hose?
- Are pressure-reducing regulators used only for the gas and pressures for which they are intended?
- Is open circuit (No Load) voltage of arc welding and cutting machines as low as possible and not in excess of the recommended limits?
- Under wet conditions, are automatic controls for reducing no-load voltage used?
- Is grounding of the machine frame and safety ground connections of portable machines checked periodically?
- Are electrodes removed from the holders when not in use?
- Is it required that electric power to the welder be shut off when no one is in attendance?
- Is suitable fire extinguishing equipment available for immediate use?
- Is the welder forbidden to coil or loop welding electrode cable around his body?
- Are wet machines thoroughly dried and tested before being used?
- Are work and electrode lead cables frequently inspected for wear and damage, and replaced when needed?
- Do means for connecting cable lengths have adequate insulation?
- When the object to be welded cannot be moved and fire hazards cannot be removed, are shields used to confine heat, sparks, and slag?
- Are fire watchers assigned when welding or cutting is performed in locations where a serious fire

might develop?

- Are combustible floors kept wet, covered by damp sand, or protected by fire-resistant shields?
- When floors are wet down, are personnel protected from possible electrical shock?
- When welding is done on metal walls, are precautions taken to protect combustibles on the other side?
- Before hot work is begun, are used drums, barrels, tanks, and other containers so thoroughly cleaned that no substances remain that could explode, ignite, or produce toxic vapors?
- Is it required that eye protection, helmets, hand shields, and goggles meet appropriate standards?
- Are employees exposed to the hazards created by welding, cutting, or brazing operations protected with personal protective equipment and clothing?
- Is a check made for adequate ventilation in and where welding or cutting is performed?
- When working in confined places, are environmental monitoring tests taken and means provided for quick removal of welders in case of an emergency?

### **Compressors & Compressed Air**

- Are compressors equipped with pressure relief valves, and pressure gauges?
- Are compressor air intakes installed and equipped so as to ensure that only clean, uncontaminated air enters the compressor?
- Are air filters installed on the compressor intake?
- Are compressors operated and lubricated in accordance with the manufacturer's recommendations?
- Are safety devices on compressed air systems checked frequently?
- Before any repair work is done on the pressure system of a compressor, is the pressure bled off and the system locked-out?
- Are signs posted to warn of the automatic starting feature of the compressor?
- Is the belt drive system totally enclosed to provide protection for the front, back, top, and sides?
- Is it strictly prohibited to direct compressed air towards a person?

- Are employees prohibited from using highly compressed air for cleaning purposes?
- If compressed air is used for cleaning off clothing, is the pressure reduced to less than 10 psi?
- When using compressed air for cleaning, do employees wear protective chip guarding and personal protective equipment?
- Are safety chains or other suitable locking devices used at couplings of high pressure hose lines, where a connection failure would create a hazard?
- Before compressed air is used to empty containers of liquid, is the safe working pressure of the container checked?
- When compressed air is used with abrasive blast cleaning equipment, is the operating valve a type that must be held open manually?
- When compressed air is used to inflate auto tires, is a clip-on chuck and an inline regulator preset to 40 psi required?
- Is it prohibited to use compressed air to clean up or move combustible dust, if such action could cause the dust to be suspended in the air and cause a fire or explosion hazard?

### **Compressed Air Receivers**

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

## Compressed Gas Cylinders

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

## **Hoist & Auxiliary Equipment**

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

**Industrial Trucks-Forklifts**

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

## **Spraying Operations**

- Is adequate ventilation assured before spray operations are started?
- Is mechanical ventilation provided when spraying operation is done in enclosed areas?
- When mechanical ventilation is provided during spraying operations, is it so arranged that it will not circulate the contaminated air?
- Is the spray area free of hot surfaces?
- Is the spray area at least 20 feet from flames, sparks, operating electrical motors, and other ignition sources?
- Are portable lamps, used to illuminate spray areas, suitable for use in a hazardous location?
- Is approved respiratory equipment provided and used, when appropriate, during spraying operations?
- Do solvents used for cleaning have a flash point of 100°F or more?
- Are fire control sprinkler heads kept clean?
- Are "NO SMOKING" signs posted in spray areas, paint rooms, paint booths, and paint storage areas?
- Is the spray area kept clean of combustible residue?
- Are spray booths constructed of metal, masonry, or other substantial noncombustible material?
- Are spray booth floors and baffles noncombustible and easily cleaned?
- Is infrared drying apparatus kept out of the spray area during spraying operations?
- Is the spray booth completely ventilated before using the drying apparatus?
- Is the electric drying apparatus properly grounded?
- Are lighting fixtures for spray booths located outside of the booth and the interior lighted through sealed clear panels?
- Are electric motors for exhaust fans placed outside booths or ducts?
- Are belts and pulleys inside the booth fully enclosed?

- Do ducts have access doors to allow cleaning?
- Do all drying spaces have adequate ventilation?

### **Entering Confined Spaces**

- Are confined spaces thoroughly emptied of any corrosive or hazardous substances, such as acids or caustics, before entry?
- Are all lines to a confined space containing inert, toxic, flammable, or corrosive materials valved off and blanked or disconnected and separated before entry?
- Is it required that all impellers, agitators, or other moving equipment inside confined spaces be locked-out if they present a hazard?
- Is either natural or mechanical ventilation provided prior to confined space entry?
- Are appropriate atmosphere tests performed to check for: oxygen deficiency, toxic substance, and explosive concentrations in the confined space before entry?
- Is adequate illumination provided for the work to be performed in the confined space?
- Is the atmosphere inside the confined space frequently tested or continuously monitored during conduct of work?
- Is there an assigned safety standby employee outside of the confined space, when required, whose sole responsibility is to watch the work in progress, sound an alarm if necessary, and render assistance?
- Is the standby employee appropriately trained and equipped to handle an emergency?
- Is the standby employee or other employees prohibited from entering the confined space without lifelines and respiratory equipment if there is any question as to the cause of an emergency?
- Is approved respiratory equipment required if the atmosphere inside the confined space cannot be made acceptable?
- Is all portable electrical equipment used inside confined spaces either grounded and insulated, or equipped with ground fault protection?
- Before gas welding or burning is started in a confined space, are hoses checked for leaks, compressed gas bottles forbidden inside of the confined space, torches lighted only outside of the confined area, and the confined area tested for an explosive atmosphere each time before a lighted torch is to be taken into the confined space?

- If employees will be using oxygen-consuming equipment such as salamanders, torches, furnaces, etc., in a confined space, is sufficient air provided to assure combustion without reducing the oxygen concentration of the atmosphere below 19.5 percent by volume?
- Whenever combustion type equipment is used in a confined space, are provisions made to ensure the exhaust gases are vented outside of the enclosure?
- Is each confined space checked for decaying vegetation or animal matter which may produce methane?
- Is the confined space checked for possible industrial waste which could contain toxic properties?
- If the confined space is below the ground and near areas where motor vehicles will be operating, is it possible for vehicle exhaust or carbon monoxide to enter the space?

### **Environmental Controls**

- Are all work areas properly illuminated?
- Are employees instructed in proper first aid and other emergency procedures?
- Are hazardous substances identified which may cause harm by inhalation, ingestion, skin absorption, or contact?
- Are employees aware of the hazards involved with the various chemicals they may be exposed to in their work environment, such as ammonia, chlorine, epoxies, caustics, etc.?
- Is employee exposure to chemicals in the workplace kept within acceptable levels?
- Can a less harmful method or product be used?
- Is the work area's ventilation system appropriate for the work being performed?
- Are spray painting operations done in spray rooms or booths equipped with an appropriate exhaust system?
- Is employee exposure to welding fumes controlled by ventilation, use of respirators, exposure time, or other means?
- Are welders and other workers nearby provided with flash shields during welding operations?
- If forklifts and other vehicles are used in buildings or other enclosed areas, are the carbon monoxide levels kept below maximum acceptable concentration?

- Has there been a determination that noise levels in the facilities are within acceptable levels?
- Are steps being taken to use engineering controls to reduce excessive noise levels?
- Are proper precautions being taken when handling asbestos and other fibrous materials?
- Are caution labels and signs used to warn of asbestos?
- Are wet methods used, when practicable, to prevent the emission of airborne asbestos fibers, silica dust, and similar hazardous materials?
- Is vacuuming with appropriate equipment used whenever possible rather than blowing or sweeping dust?
- Are grinders, saws, and other machines that produce respirable dusts vented to an industrial collector or central exhaust system?
- Are all local exhaust ventilation systems designed and operating properly, such as air flow and volume necessary for the application, ducts not plugged, or belts slipping?
- Is personal protective equipment provided, used, and maintained wherever required?
- Are there written standard operating procedures for the selection and use of respirators where needed?
- Are restrooms and washrooms kept clean and sanitary?
- Is all water provided for drinking, washing, and cooking potable?
- Are all outlets for water not suitable for drinking clearly identified?
- Are employees' physical capacities assessed before being assigned to jobs requiring heavy work?
- Are employees instructed in the proper manner of lifting heavy objects?
- Where heat is a problem, have all fixed work areas been provided with spot cooling or air conditioning?
- Are employees screened before assignment to areas of high heat to determine if their health condition might make them more susceptible to having an adverse reaction?
- Are employees working on streets and roadways where they are exposed to the hazards of traffic, required to wear bright colored (traffic orange) warning vests?
- Are exhaust stacks and air intakes so located that contaminated air will not be recirculated within

a building or other enclosed area?

- Is equipment producing ultra-violet radiation properly shielded?

### **Flammable Materials & Combustible**

- Are combustible scrap, debris and waste materials (oily rags, etc.) stored in covered metal receptacles and removed from the worksite promptly?
- Is proper storage practiced to minimize the risk of fire including spontaneous combustion?
- Are approved containers and tanks used for the storage and handling of flammable and combustible liquids?
- Are all connections on drums and combustible liquid piping, vapor, and liquid tight?
- Are all flammable liquids kept in closed containers when not in use (e.g. parts cleaning tanks, pans, etc.)?
- Are bulk drums of flammable liquids grounded and bonded to containers during dispensing?
- Do storage rooms for flammable and combustible liquids have explosion-proof lights?
- Do storage rooms for flammable and combustible liquids have mechanical or gravity ventilation?
- Is liquified petroleum gas stored, handled, and used in accordance with safe practices and standards?
- Are no smoking signs posted on liquified petroleum gas tanks?
- Are liquified petroleum storage tanks guarded to prevent damage from vehicles?
- Are all solvents, wastes, and flammable liquids kept in fire-resistant, covered containers until they are removed from the worksite?
- Is vacuuming used whenever possible rather than blowing or sweeping combustible dust?
- Are firm separators placed between containers of combustibles or flammables, when stacked one upon another, to assure their support and stability?
- Are fuel gas cylinders and oxygen cylinders separated by distance, fire resistant barriers, etc., while in storage?
- Are fire extinguishers selected and provided for the types of materials in areas where they are to be used?

Class A Ordinary combustible material fires.

Class B Flammable liquid, gas, or grease fires.

Class C Energized-electrical equipment fires.

- Are appropriate fire extinguishers mounted within 75 feet of outside areas containing flammable liquids, and within 10 feet of any inside storage area for such materials?
- Are extinguishers free from obstructions or blockage?
- Are all extinguishers serviced, maintained, and tagged at intervals not to exceed one year?
- Are all extinguishers fully charged and in their designated places?
- Where sprinkler systems are permanently installed, are the nozzle heads so directed or arranged that water will not be sprayed into operating electrical switch boards and equipment?
- Are "NO SMOKING" signs posted where appropriate in areas where flammable or combustible materials are used or stored?
- Are safety cans used for dispensing flammable or combustible liquids, at a point of use?
- Are all spills of flammable or combustible liquids cleaned up promptly?
- Are storage tanks adequately vented to prevent the development of excessive vacuum or pressure as a result of filling, emptying, or atmosphere temperature changes?
- Are storage tanks equipped with emergency venting that will relieve excessive internal pressure caused by fire exposure?
- Are "NO SMOKING" rules enforced in areas involving storage and use of hazardous materials?

## Hazardous Chemical Exposures

- Are employees trained in the safe handling practices of hazardous chemicals such as acids, caustics, etc.?
- Are employees aware of the potential hazards involving various chemicals stored or used in the workplace such as acids, bases, caustics, epoxies, phenols, etc.?
- Is employee exposure to chemicals kept within acceptable levels?
- Are eyewash fountains and safety showers provided in areas where corrosive chemicals are handled?
- Are all containers, such as vats, storage tanks, etc., labeled as to their contents, e.g. "CAUSTICS"?
- Are all employees required to use personal protective clothing and equipment when handling chemicals (gloves, eye protection, respirators, etc.)?
- Are flammable or toxic chemicals kept in closed containers when not in use?
- Are chemical piping systems clearly marked as to their content?
- Where corrosive liquids are frequently handled in open containers or drawn from storage vessels or pipelines, is adequate means readily available for neutralizing or disposing of spills or overflows properly and safely?
- Have standard operating procedures been established and are they being followed when cleaning up chemical spills?
- Where needed for emergency use, are respirators stored in a convenient, clean, and sanitary location?
- Are respirators, intended for emergency use, adequate for the various uses for which they may be needed?
- Are employees prohibited from eating in areas where hazardous chemicals are present?
- Is personal protective equipment provided, used, and maintained whenever necessary?
- Are there written standard operating procedures for the selection and use of respirators where needed?
- If you have a respirator protection program, are your employees instructed on the correct usage and limitations of the respirators? Are the respirators NOISH approved for this particular

application? Are they regularly inspected and cleaned, sanitized and maintained?

- If hazardous substances are used in your processes, do you have a medical or biological monitoring system in operation?
- Are you familiar with the Threshold Limit Values or Permissible Exposure Limits of airborne contaminants and physical agents used in your workplace?
- Have control procedures been instituted for hazardous materials, where appropriate, such as respirators, ventilation systems, handling practices, etc.?
- Whenever possible, are hazardous substances handled in properly designed and exhaust booths or similar locations?
- Do you use general dilution or local exhaust ventilation systems to control dusts, vapors, gases, fumes, smoke, solvents, or mists which may be generated in your workplace?
- Is ventilation equipment provided for removal of contaminants from such operations as: production grinding, buffing, spray painting, and/or vapor degreasing, and is it operating properly?
- Do employees complain about dizziness, headaches, nausea, irritation, or other factors of discomfort when they use solvents or other chemicals?
- Is there a dermatitis problem? Do employees complain about dryness, irritation, or sensitization of the skin?
- Have you considered the use of an industrial hygienist or environmental health specialist to evaluate your operation?
- If internal combustion engines are used, is carbon monoxide kept within acceptable levels?
- Is vacuuming used, rather than blowing or sweeping dusts, whenever possible for clean-up?
- Are materials which give off toxic asphyxiant, suffocating or anesthetic fumes, stored in remote or isolated locations when not in use?

### **Hazardous Substances Communication**

- Is there a written Hazard Communication Program dealing with Material Safety Data Sheets (MSDS), labeling, and employee training?
- Is there a list of hazardous substances used in your workplace?
- Is each container for a hazardous substance (i.e., vats, bottles, storage tanks, etc.) labeled with product identity and a hazard warning (communication of the specific health hazards and physical hazards)?
- Is there a Material Safety Data Sheet readily available for each hazardous substance used?
- Is there an employee training program for hazardous substances?

Does this program include:

- (1) An explanation of what an MSDS is and how to use and obtain one.
- (2) MSDS contents for each hazardous substance or class of substances.
- (3) Explanation of "Right to Know."
- (4) Identification of where an employee can see the employer's written hazard communication program and where hazardous substances are present in their work areas.
- (5) The physical and health hazards of substances in the work area, and specific protective measures to be used.
- (6) Details of the hazard communication program, including how to use the labeling system and MSDS's.

## Electrical

- Are your workplace electricians familiar with the Electrical Safety Orders?
- Do you specify compliance with these for all contract electrical work?
- Are all employees required to report, as soon as it is practical, any obvious hazards to life or property observed in connection with electrical equipment or lines?
- Are all employees instructed to make preliminary inspections and/or appropriate tests to determine what conditions exist before starting work on electrical equipment or lines?
- When electrical equipment or lines are to be serviced, maintained, or adjusted, are necessary switches opened, locked-out and tagged whenever possible?
- Are electrical appliances such as vacuum cleaners, polishers, vending machines, etc., grounded?
- Are portable electrical tools and equipment grounded or of the double-insulated type?
- Do extension cords being used have a grounding conductor?
- Are multiple-plug adapters prohibited?
- Are ground-fault circuit interrupters installed on each temporary 15 or 20 ampere, 120 volt AC circuit at locations where construction, demolition, modifications, alterations, or excavations are being performed?
- Are all temporary circuits protected by suitable disconnecting switches or plug connectors at the junction with permanent wiring?
- Is exposed wiring and cords with frayed or deteriorated insulation repaired or replaced promptly?
- Are flexible cords and cables free of splices or tapes?
- Are clamps or other securing means provided on flexible cords or cables at plugs, receptacles, tools, equipment, etc., and is the cord jacket securely held in place?
- Are all cord, cable, and raceway connection intact and secure?
- In wet or damp locations, are electrical tools and equipment appropriate for the use or location, or otherwise protected?
- Is the location of electrical power lines and cables (overhead, underground, underfloor, other side of walls, etc.) determined before digging, drilling, or similar work is begun?

- Are metal measuring tapes, ropes, handlines, or similar devices with metallic thread woven into the fabric prohibited where they could come in contact with energized parts of equipment or circuit conductors?
- Is the use of metal ladders prohibited in areas where the ladder, or the person using the ladder, could come in contact with energized parts of equipment, fixtures, or circuit conductors?
- Are all disconnecting switches and circuit breakers labeled to indicate their use or equipment served?
- Are disconnecting means always opened before fuses are replaced?
- Do all interior wiring systems include provisions for grounding metal parts of electrical raceways, equipment, and enclosures?
- Are all electrical raceways and enclosures securely fastened in place?
- Are all energized parts of electrical circuits and equipment guarded against accidental contact by approved cabinets or enclosures?
- Is sufficient access and working space provided and maintained about all electrical equipment to permit ready and safe operations and maintenance?
- Are all unused openings (including conduit knockouts) in electrical enclosures, and fittings closed with appropriate covers, plugs, or plates?
- Are electrical enclosures such as switches, receptacles, junction boxes, etc., provided with tight-fitting covers or plates?
- Are disconnecting switches for electrical motors in excess of two horsepower, capable of opening the circuit when the motor is in a stalled condition, without exploding? (Switches must be horsepower-rated equal to or in excess of the motor hp rating.)
- Is low-voltage protection provided in the control device of motor-driving machines or equipment which could cause probable injury from inadvertently starting?
- Is each motor disconnecting switch or circuit breaker located within sight of the motor-control device?
- Is each motor located within sight of its controller, or the controller disconnecting means capable of being locked in the open position, or is a separate disconnecting means installed in the circuit within sight of the motor?
- Is the controller for each motor in excess of two horsepower, rated in horsepower equal to or in

excess of the rating of the motor it serves?

- Are employees who regularly work on or around energized electrical equipment or lines instructed in the cardio-pulmonary resuscitation (CPR) methods?
- Are employees prohibited from working alone on energized lines or equipment over 600 volts?

### **Noise**

- Are there areas in the workplace where continuous noise levels exceed 85 dBA? (To determine maximum allowable levels for intermittent or impact noise, see Title 8 CAC Section 5097.)
- Is there an ongoing preventative health program to educate employees in: safe levels of noise, exposures, effects of noise on their health, and the use of personal protection?
- Have work areas where noise levels make voice communication between employees difficult, been identified and posted?
- Are noise levels being measured using a sound level meter or an octave band analyzer, and records being kept?
- Have engineering controls been used to reduce excessive noise levels? Where engineering controls are determined not to be feasible, are administrative controls (i.e. worker rotation) being used to minimize individual employee exposure to noise?
- Is approved hearing protective equipment (noise-attenuating devices) available to every employee working in noisy areas?
- Have you tried isolating noisy machinery from the rest of your operation?
- If you use ear protectors, are employees properly fitted and instructed in their use.
- Are employees in high noise areas given periodic audiometric testing to ensure that you have an effective hearing protection system?

### **Fueling**

- Is it prohibited to fuel an internal combustion engine with a flammable liquid while the engine is running?
- Are fueling operations done in such a manner that likelihood of spillage will be minimal?
- When spillage occurs during fueling operations, is the spilled fuel washed away completely, evaporated, or other measures taken to control vapors before restarting the engine?

- Are fuel tank caps replaced and secured before starting the engine?
- In fuel operations, is there always metal contact between the container and the fuel tank?
- Are fueling hoses of a type designed to handle the specific type of fuel?
- Is it prohibited to handle or transfer gasoline in open containers?
- Are open lights, open flames, and sparking or arcing equipment prohibited near fueling or transfer of fuel operations?
- Is smoking prohibited in the vicinity of fueling operations?
- Are fueling operations prohibited in building or other enclosed areas that are not specifically ventilated for this purpose?
- Where fueling or transfer of fuel is done through a gravity flow system, are the nozzles of the self-closing type?

### **Identification Of Piping Systems**

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

## **Material Handling**

- Is there safe clearance for equipment through aisles and doorways?
- Are aisleways designated, permanently marked, and kept clear to allow unhindered passage?
- Are motorized vehicles shut off and brakes set prior to loading or unloading?
- Are containers of combustibles or flammables, when stacked while being moved, always separated sufficiently to provide stability?
- Are dock boards (bridge plates), used when loading or unloading operations are taking place, between vehicles and docks?
- Are trucks and trailers secured from movement during loading and unloading operations?
- Are dock plates and loading ramps constructed and maintained with sufficient strength to support imposed loading?
- Are hand trucks maintained in safe operating condition?
- Are chutes equipped with sideboards of sufficient height to prevent the materials being handled from falling off?
- Are chutes and gravity-roller sections firmly placed or secured to prevent displacement?
- At the delivery-end of rollers or chutes, are provisions made to brake the movement of the handled materials?
- Are pallets usually inspected before being loaded or moved?
- Are hooks with safety latches or other arrangements used when hoisting materials so that slings or load attachments will not accidentally slip off the hoist hooks?
- Are securing chains, ropes, chockers, or slings adequate for the job to be performed?
- When hoisting material or equipment, are provisions made to assure no one will be passing under the suspended loads?
- Are material safety data sheets available to employees handling hazardous substances?

### **Transporting Employees & Materials**

- Do employees who operate vehicles on public thoroughfares have valid operator's licenses?
- When seven or more employees are regularly transported in a van, bus, or truck, is the operator's license appropriate for the class of vehicle being driven?
- Is each van, bus, or truck used regularly to transport employees, equipped with an adequate number of seats?
- When employees are transported by truck, are provisions made to prevent their falling from the vehicle?
- Are vehicles used to transport employees, equipped with lamps, brakes, horns, mirrors, windshields, and turn signals in good repair?
- Are transport vehicles provided with handrails, steps, stirrups or similar devices, so placed and arranged that employees can safely mount or dismount?
- Are employee transport vehicles equipped at all times with at least two reflective-type flares?
- Is a fully charged fire extinguisher, in good condition, with at least 4 B:C rating, maintained in each employee transport vehicle?
- When cutting-tools, or tools with sharp edges, are carried in passenger compartments of employee transport vehicles, are they placed in closed boxes or containers which are secured in place?
- Are employees prohibited from riding on top of any load which can shift, topple, or otherwise become unstable?

### **Control Of Harmful Substances By Ventilation**

- Is the volume and velocity of air in each exhaust system sufficient to gather the dusts, fumes, mists, vapors, or gases to be controlled, and to convey them to a suitable point of disposal?
- Are exhaust inlets, ducts, designed, constructed, and supported to prevent collapse or failure of any part of the system?
- Are clean-out ports or doors provided, at intervals not to exceed 12 feet, in all horizontal runs of exhaust ducts?
- Where two or more different types of operations are being controlled through the same exhaust system, will the combination of substances being controlled constitute a fire, explosion, or

chemical reaction hazard in the duct?

- Is adequate make-up air provided to areas where exhaust systems are operating?
- Is the source point for make-up air located so that only clean, fresh air, which is free of contaminants, will enter the work environment?
- Where two or more ventilation systems are serving a work area, is their operation such that one will not offset the functions of the other?

### **Sanitizing Equipment & Clothing**

- Is personal protective clothing or equipment, that employees are required to wear or use, of a type capable of being cleaned easily and disinfected?
- Are employees prohibited from interchanging personal protective clothing or equipment, unless it has been properly cleaned?
- Are machines and equipment, which processes, handles, or applies materials which could be injurious to employees, cleaned and/or decontaminated before being overhauled or placed in storage?
- Are employees prohibited from smoking or eating in any area where contaminants that could be injurious if ingested are present?
- When employees are required to change from street clothing into protective clothing, is a clean change-room, with separate storage facility for street and protective clothing, provided?
- Are employees required to shower and wash their hair as soon as possible after a known contact has occurred with a carcinogen?
- When equipment, materials, or other items are taken into or removed from a carcinogen regulated area, is it done in a manner that will not contaminate non-regulated areas or the external environment?

### **Tire Inflation**

- Where tires are mounted and/or inflated on drop center wheels, is a safe practice procedure posted and enforced?
- Where tires are mounted and/or inflated on wheels with split rims and/or retainer rings, is a safe practice procedure posted and enforced?
- Does the tire inflation hose have a clip-on chuck with at least 24 inches of hose between the

chuck and an in-line hand valve and gauge?

- Does the tire inflation control valve automatically shut-off the air flow when the valve is released?
- Is a tire restraining device such as a cage, rack, or other effective means used while inflating tires mounted on split rims, or rims using retainer rings?
- Are employees strictly forbidden from taking a position directly over or in front of a tire while it is being inflated?