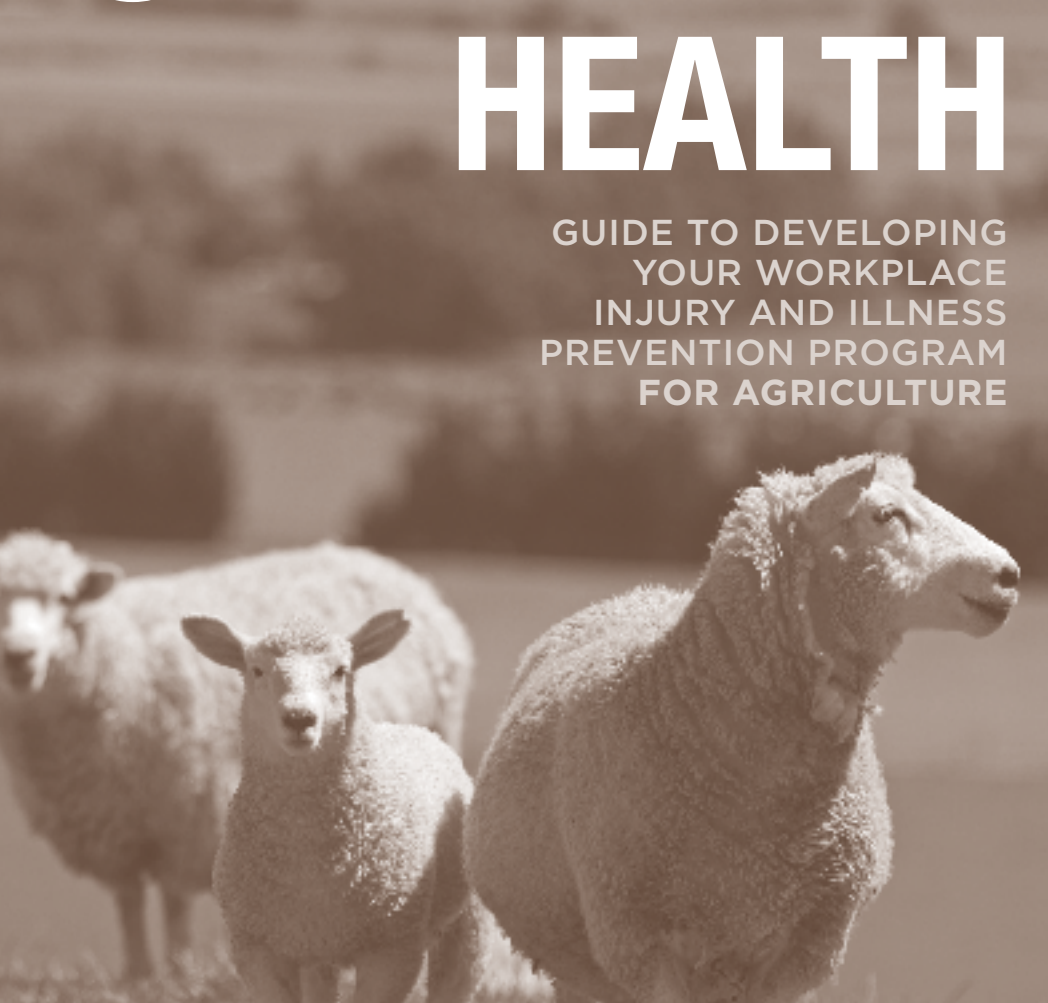


# TAKING ACTION FOR SAFETY AND HEALTH

GUIDE TO DEVELOPING  
YOUR WORKPLACE  
INJURY AND ILLNESS  
PREVENTION PROGRAM  
FOR AGRICULTURE



**Promoting Safe and Healthy Workplaces for California's Small Businesses**

The Commission on Health and Safety and Workers' Compensation (CHSWC) | California Department of Industrial Relations

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## Introduction To This Guide



**Agriculture is one of the most hazardous industries in the U.S.** [McCurdy and Carroll 2000].

Farmworkers suffer high rates of fatal and nonfatal work-related injuries and illnesses. This is in part due to the fact that agricultural workplaces are extremely diverse—both in terms of the type of work being done but also with respect to the demographic, socioeconomic, linguistic, and cultural characteristics of the workforce. Having an effective Injury and Illness Prevention Program (IIPP) can help you create a safe work environment for your employees.

An effective IIPP is more than a piece of paper; it is an effective and powerful tool which, when implemented, can help protect workers by addressing the safety and health issues pertinent to a specific work environment. An effective IIPP can contribute to reducing costs and risks associated with workplace injuries and illnesses.

This Guide was developed to help agricultural workplaces in California comply with Cal/OSHA's IIPP standard and, consequently, protect the health and safety of their employees. The Guide was specifically designed for the individuals who write their workplace's IIPP and for those who participate in its implementation in an agricultural setting.

The Guide was developed to be used with an online IIPP fill-in-the-blank template and a training program on how to implement an effective IIPP. These resources are a component of the state's Worker Occupational Safety and Health Training and Education Program (WOSHTEP). To access the template, go to the WOSHTEP webpage at [www.dir.ca.gov/chswc/WOSHTEP/iipp](http://www.dir.ca.gov/chswc/WOSHTEP/iipp).

If you need additional assistance creating or improving your IIPP, contact any of the WOSHTEP Resource Centers and/or Cal/OSHA Consultation Service.

# The Worker Occupational Safety and Health Training and Education Program (WOSHTEP)

The Worker Occupational Safety and Health Training and Education Program (WOSHTEP) is a statewide initiative to help workplaces in California reduce work-related injuries and illnesses among employees and comply with Cal/OSHA's Injury and Illness Prevention Program (IIPP) standard (Title 8, California Code of Regulations §3203). See the regulation in Appendix A. WOSHTEP offers free training programs, written materials and technical assistance to help build the capacity and skills of worker leaders, supervisors, small business owners and managers, and others involved in developing and implementing an effective workplace injury and illness prevention program.

For more information about WOSHTEP, contact the Commission on Health and Safety and Workers' Compensation at 510-622-3959 or visit the WOSHTEP webpage at [www.dir.ca.gov/chswc/WOSHTEP](http://www.dir.ca.gov/chswc/WOSHTEP). For more information about the IIPP materials and trainings, contact any of the three WOSHTEP resources centers: WCAHS at the University of California, Davis at (530) 754-8678, LOHP at the University of California, Berkeley at 510-643-8902, or LOSH at the University of California Los Angeles at (310) 794-5964.



# Overview of Cal/OSHA's Injury & Illness Prevention Program Standard

- Every employer in California is required by Cal/OSHA to establish, implement and maintain a written Injury and Illness Prevention Program (IIPP). This written plan must describe your workplace's health and safety program and how you will implement the eight elements of an effective program that are required by Cal/OSHA's IIPP standard.
- A copy of the plan should be maintained at each worksite. A copy must be kept at the central workplace if the employer has non-fixed worksites.
- The IIPP must describe the following eight elements that are required by the Cal/OSHA standard:
  1. Assignment of the responsibility for safety
  2. Systems for ensuring employee compliance with safety procedures
  3. Communication with employees and methods for involving them in safety-related activities
  4. Hazard assessment/inspection
  5. Investigations of occupational injuries, occupational illnesses, and accidents
  6. Correction of hazards
  7. Occupational safety and health training
  8. Recordkeeping and documentation of your program and program activities.<sup>1</sup> The Cal/OSHA IIPP standard is contained in Title 8 of the California Code of Regulations, Section 3203 (T8 CCR §3203). A copy of the standard is attached (Appendix A).

<sup>1</sup> Please note that while all employers must have a written IIPP, there are some exceptions to the recordkeeping requirements (see page 26 of this Guide). Regardless, it is a best practice for all employers to keep adequate records.

# Using WOSHTEP's Model IIPP for Agriculture



Developing an effective Injury and Illness Prevention Program (IIPP) involves setting health and safety goals, assigning the right people to be in charge, and then coming up with a plan that complies with Cal/OSHA requirements while meeting the individual needs of your workplace. All employees must be informed about the program and how the elements of the program are carried out in your work environment.

You must regularly review and update your IIPP in order for it to remain effective. Cal/OSHA assesses whether workplaces have “living programs” —ones that are actively implemented and routinely updated as needed.

You can use WOSHTEP's Injury and Illness Prevention Program for Agriculture template to help you document the elements of your program. We recommend reading this Guide before using the online template.

Go to the WOSHTEP webpage at [www.dir.ca.gov/chswc/WOSHTEP/iipp](http://www.dir.ca.gov/chswc/WOSHTEP/iipp) to access the template. Use this template (or other form if you prefer) to document how you will carry out the requirements of each element. The tools are also available on this web page.

## Using the Template

If you are in charge of writing your workplace's Injury and Illness Prevention Program, open the IIPP template on [www.dir.ca.gov/chswc/WOSHTEP/IIPP](http://www.dir.ca.gov/chswc/WOSHTEP/IIPP) and let's get started. The form is in Microsoft Word. Type:

1. The name and address of your business
2. Your name and contact information, as the person completing the form

**Note: Items that are already checked on the IIPP template are required by the Cal/OSHA IIPP standard.**



# 1. Assignment of Responsibilities

(Title 8 California Code of Regulations §3203(a)(1))

An essential first step to developing your Injury and Illness Prevention Program (IIPP) is identifying the individual (or individuals) who will be in charge of your safety program and establishing their roles and assignments. The person assigned the responsibility for your IIPP must be identified by name in your written IIPP. Make sure this individual is one who is knowledgeable about your workplace's health and safety issues and hazard control measures. This individual, who has the authority and responsibility for your workplace's safety and health program, must be given full support by management.

If you have non-fixed worksites, you should identify by name at least one person at each location to be in charge of employee safety (a "safety coordinator"). Other regulations may require that an onsite person be identified under certain circumstances (as in the case of the High Heat Procedures under Title 8 CCR §3395). A system should be developed for having these safety coordinators regularly communicate with each other and with the IIPP administrator(s). If you establish a health and safety committee, the safety coordinators should be members of the committee.

## Using the Template

On your template, type the name of the IIPP administrator and any co-administrators. Also indicate what responsibilities the administrator(s) will have regarding safety for your workplace.





## 2. Employee Compliance with Safety Procedures

(Title 8 CCR §3203 (a) (2))

Make sure clear safety procedures have been developed for each occupation in each worksite and include rules for safely handling any new health or safety hazards that are introduced into the work environment. You and the persons in charge of health and safety at each site should periodically review and update all rules and procedures to make sure they reflect present conditions.

The IIPP standard requires that employers establish a system for ensuring that all permanent and intermittent workers follow safety rules. This system must include informing employees about the provisions of your IIPP and the safety procedures to be followed. All communication must be in a form readily understandable by all affected workers. Your IIPP must also include a system for providing positive recognition of employees who perform safe and healthful work practices and for fairly and consistently disciplining employees who fail to follow safety rules. If safety rules aren't followed, it's helpful to review procedures to see if they are practical and achievable and to consider if any revisions are needed. It is also important to retrain employees whose safety performance is deficient before beginning a disciplinary process.

Make sure the system your workplace creates does not discourage employees from reporting their injuries or symptoms. Programs that reward employees for a number of days without an injury are strongly discouraged by Cal/OSHA because they can be a disincentive to report injuries or early symptoms of a health problem. Early reporting of symptoms of musculoskeletal disorders and other work-related problems can help you address hazards before they cause more serious injuries. They can also reduce the potential costs of a more serious injury or illness that may develop.

### Using the Template

On your template, the required practices with respect to employee compliance have been noted. Check any additional practices and type in descriptions of how the workplace will ensure compliance with health and safety procedures, including your system for recognizing employees performing safe work practices.

### 3. Communication with Employees about Safety

(Title 8 CCR §3203(a)(3))

Your program must include a program for communicating with employees and involving them in your Injury and Illness Prevention Program (IIPP). Communicating with workers can take place through trainings, meetings, announcements, email notices, memos, newsletters and/or through the activities of a health and safety committee. Communication systems must include all workers, including those with special communication needs, and it must be in a language and manner that they understand.

All workers must be informed about your IIPP and how it is being implemented as well as their responsibility to comply with the workplace's occupational safety and health procedures. Talk to workers about how to protect themselves before they are assigned to duties exposing them to workplace hazards. Your safety communication system must also include a method for encouraging employees to report potential hazards in the work environment without fear of reprisal.

#### Establish a Health and Safety Committee

While Cal/OSHA's IIPP standard does not require employers to establish health and safety committees, it is highly recommended as a way of involving employees in safety and implementing an effective health and safety program. Establishing a health and safety committee can also help you meet the communication requirements of the IIPP standard. If you establish a health and safety committee to meet the communication requirements of the IIPP standard, your committee must include both wage and hourly worker representatives and managerial representatives. The committee must also meet regularly (at least quarterly) to plan, implement and evaluate your IIPP. Employers must also maintain records of the safety and health issues discussed at the committee meetings. For more information about establishing an effective health and safety committee, contact one of the Resource Centers (see page 2 for contact information).

#### Using the Template

On your template, the required practices with respect to communicating with employees about safety have been checked. Type in any other methods you use to communicate with employees about safety. Also type in an explanation of your system for how employees can report potential hazards in the work environment without fear of reprisal.

## 4. Hazard Assessment/Inspection

(Title 8 CCR §3203 (a) (4))

All worksites must have a system in place for periodically assessing the work environment for health and safety hazards that can cause injuries and illnesses. Assessing hazards can be accomplished by conducting regular inspections and by collecting information from workers through surveys, interviews or other methods.

Inspections must be performed when:

- You first establish your IIPP
- New processes, procedures, equipment or substances (e.g., chemicals) are introduced in your workplace
- New previously unidentified hazards are recognized
- There is a near miss, or when occupational injuries or illnesses occur
- You hire and/or reassign permanent or intermittent workers to tasks for which a hazard evaluation has not been previously conducted, and
- Whenever workplace conditions warrant an inspection.

WOSHTEP has a simple inspection checklist for agricultural work environments. See Ag Tool 1, *Inspection Checklist*.

### Using the Template

On your template, check the boxes that indicate who will be responsible for conducting inspections. The required schedule for inspections is noted. You also have the option of conducting inspections at other times. Type in any other times your workplace will conduct inspections.





## 5. Investigation of Accidents, Injuries and Illnesses

(Title 8 CCR §3203 (a)(5))

Although the goal is to prevent injuries, illnesses and harmful exposures before they occur, when accidents or near misses do occur, they can provide a good opportunity to identify health and safety problems and target prevention efforts. Accident investigations must be conducted by trained supervisors, managers or other knowledgeable persons. The main goal of the investigation should be to understand why the incident or near miss occurred and what actions can be taken to prevent recurrence. It is also a good idea to have worker leaders, such as those on your health and safety committee (if you have one), participate in these investigations.

Your investigation report must be in writing and adequately identify who was injured, the names of any witnesses, and the cause(s) of the incident or near miss. It should also include a description of the underlying factors that may have contributed to it and what can be done to prevent the incident in the future.

WOSHTEP has a tool to help you document the direct and underlying causes of an incident, accident or near miss. See Ag Tool 2, *Investigation of Accidents, Injuries and Illnesses*.

### Using the Template

The template lists common steps involved in conducting an accident, injury or illness investigation, some of which are required. Make sure your investigation includes these steps. Check and describe any additional practices used by your workplace.

## 6. Hazard Correction

(Title 8 CCR §3203 (a)(6))

Once hazards are identified, they must be corrected in a timely manner. You need to establish a system for correcting hazards which includes the policy that whenever there is an imminent hazard that can't be immediately corrected, all exposed employees will be immediately removed from the area. You also must ensure that any workers who are addressing hazards have the proper training and equipment.

There are various methods that can be used to protect workers from hazards. Some approaches are more proactive than others. Sometimes you may need a combination of methods to control a hazard. While removing the hazard may be the most effective method, you also need to have training programs and good workplace policies to supplement them. There may also be situations where personal protective equipment, such as gloves, eye protection, coveralls, foot protection, head covering and/or respirators, is essential. If personal protective equipment is used, you will need to address the following as part of the IIPP: safe storage; proper selection and use; maintenance; and replacement. Protective equipment must be stored where it is protected from chemical contamination, excessive heat, crushing or other physical hazards. It must be appropriate for the specific type of hazard, selected to fit individual workers, kept clean, inspected, and replaced when damaged. (For pesticide handlers, the specific pesticide label and state regulations need to be consulted to determine required protective equipment).

Use WOSHTEP Ag Tool 3, *Hazard Correction Tracking Form*, to help you monitor the health and safety problems you've identified and your plans for addressing these problems.

### Using the Template

On your template, both items in the Hazard Correction section are required and should be checked. Also indicate which hazards are present in your workplace. Attach your plans/policies for addressing these hazards.



## 7. Training

(Title 8CCR §3203 (a) (7))

### Training Is One of the Most Important Elements of an IIPP

Training allows workers to learn their job properly, brings new ideas into the workplace, reinforces existing ideas and practices, and puts your program into action. All permanent and intermittent workers, including managers and foremen, must have training in a language and manner they can understand. Make sure your training program reaches all affected workers and that it covers all relevant topics. Intermittent workers and those assigned non-routine tasks must be provided training about any health and safety issues related to these tasks as well so they can perform them safely.

### What Health and Safety Training Is Required?\*

The IIPP standard requires that training be provided to all workers on the hazards in their workplace:

- When they start working for their employer
- Whenever they are given a new job assignment, and
- Whenever new procedures, chemicals/pesticides and equipment are introduced into the worksite.

### How Should Health and Safety Training Be Conducted?

You may need outside professionals to help you develop and conduct your required training program. Help is available from the Commission on Health and Safety and Workers' Compensation (CHSWC), the Labor Occupational Health Program (LOHP) at UC Berkeley, the Labor Occupational Safety and Health (LOSH) Program at UCLA, the Western Center for Agricultural Health and Safety at UC Davis, Cal/OSHA Consultation Service, your workers' compensation insurance carrier, private consultants, and vendor representatives. Use WOSHTEP Ag Tool 4, *Employee Training Record*, to monitor which employees have had health and safety training, the dates of training, and the topics covered.

Cal/OSHA does not consider video- or computer-based training to be effective unless it includes the opportunity to ask questions of an instructor during the training.

### Using the Template

On your template, you will see that training is required in many situations, such as when the IIPP is first established. These required times are already checked. Add in any additional times you plan to conduct training as well as the topic areas your training covers. Add a description of how your training is conducted and who delivers your training.

\* Check page 30 of this guide for a list of suggested topics



## 8. Recordkeeping and Documentation

(Title 8 CCR 3203 (b))

Workplaces must maintain a written IIPP and documentation of how the elements of their IIPP are carried out (there are some exceptions to the recordkeeping rules\*). Maintaining such records can help you be more efficient and effective in implementing your IIPP. Recordkeeping can enable you to learn from past experience, identify patterns of injury and illness, and help target prevention efforts. Records can also help you document your successes, such as lower rates of injuries and incidents and correction of health and safety problems. Cal/OSHA will review your records during its inspections to ensure they are complete and accurate.

It is recommended that the following records be kept to document the elements of your program. These records are required if your workplace has 10 or more employees.

- 1. Worksite inspections**—Records of scheduled and periodic inspections to identify unsafe conditions and work practices should include the name of the person(s) conducting the inspection, the hazards identified and the action taken to correct the unsafe hazards.
- 2. Documentation of safety and health training provided to employees.** The documentation must include worker names, training dates, type(s) of training and the name of the training provider.





It is recommended that the following additional records be kept:

- 3. Injury and illness records**—During the year, regularly review these records to see where your injuries and illnesses are occurring. Look for any patterns or recurring situations. These records can help you identify hazardous work areas and pinpoint where immediate corrective action is needed.
- 4. Records of accidents, injuries and “near misses”**—Serious injuries and illnesses are required to be reported to Cal/OSHA within 8 hours of the employer knowing of the injury. Serious injuries and illnesses include fatalities, in-patient hospitalizations longer than 24 hours for other than medical observation, loss of any body part, or a serious degree of physical disfigurement.
- 5. Records of employee exposures to chemicals**—This includes pesticides.\*\* Include the sources of exposure and any physical examination report, employment records and other information. Employers using any regulated carcinogens have additional reporting and record keeping requirements. *See Title 8 of the California Code of Regulations for details.*

## Using the Template

On your template, check what records are kept by your workplace. Also type into your IIPP form where the copies of this IIPP will be located, including the master copy.

\* Worksites with fewer than ten workers, including managers and supervisors, only need to maintain inspection records until the hazard is corrected and a log of instructions given to workers about their job assignments when they are first hired or assigned new duties.

\*\*For additional information on recordkeeping related to pesticides, visit: [www.cdpr.ca.gov/docs/legbills/calcode/030201.htm](http://www.cdpr.ca.gov/docs/legbills/calcode/030201.htm)

# Making Your IIPP an Active Plan

When Cal/OSHA inspects a workplace for compliance with the IIPP standard, they are looking for three things:

- 1. Have you established your IIPP?**
- 2. Are you implementing your IIPP?**
- 3. Are you maintaining your IIPP?**

All workplaces, regardless of size, are required to create an IIPP. Even if your operation is very small (fewer than 10 employees), you still need to identify the hazards in your worksite, decide what steps you will take to protect your employees, and communicate with your employees about the safety issues in your workplace. But it isn't enough to just have a written IIPP plan. Programs that are written but then sit on a shelf without anyone knowing about them are not effective programs. Cal/OSHA assesses whether the IIPP is actually being effectively implemented.

Cal/OSHA also wants to see that your IIPP is being maintained. This means updating your plan on a regular basis, as appropriate. Cal/OSHA is looking for “effective” programs so if your operations change or new hazards are introduced, you may need to update your program more frequently. Remember that the goal of having an IIPP is to promote safety and health among workers; effective policies and procedures will help achieve your safety and health goals.





# Background Information

## 1. Understanding Job Hazards

Many hazards on the job are obvious, like sharp objects, muddy areas, workers working along-side machines, etc. Other hazards such as repetitive movements and exposure to pesticides may be hidden. It is important to be aware of all the different types of hazards to look for on the job, both the obvious and the hidden ones.

Workplace hazards can be broken down into different categories, such as Safety Hazards, Chemical and Biological Hazards, Ergonomic Hazards, and Other Health Hazards.

### Safety Hazards

Safety hazards can cause immediate accidents and injuries. Examples of safety hazards in agricultural settings are:

- Unsafe ladders
- Unguarded machines
- Knives and other sharp objects
- Electrical hazards
- Muddy areas
- Heavy lifting
- Tractors, combines and other machinery
- Animals





## Chemical and Biological Hazards

Chemical and biological hazards are agents that can make you sick. Some produce effects right away, but others take time. Examples include:

- Pesticides\*
- Bacteria and viruses (from soil, manure, port-o-potties, garbage cans, etc.)
- Fungi (in plants or animals)
- Parasites (in plants or animals)
- Some plants (some substances in the plant can cause allergies or be poisonous)

Chemicals exist in different forms: solids (including dusts and fumes), liquids, and gases (including vapors). A chemical can change its form when it is heated or cooled, or it is mixed with other substances. The hazards of a chemical can change depending on what form it takes. Some chemicals are more harmful as a vapor or gas than as a liquid. It is also important to consider the length of the exposure. The effect of pesticides on people depends on the amount of pesticide, the interaction with other pesticides/chemicals, and individual factors, such as age, overall health, weight, etc.

Chemicals can cause damage at the point where they first contact the body (skin, eyes, nose or throat). Some can also get inside the body when you breathe them in, swallow them, or get them on your skin. Then they travel in the bloodstream to internal organs like the liver, kidneys, heart, nervous system, brain, and reproductive organs. They may cause harm throughout the body.

\* In California, pesticides are regulated by the Department of Pesticide Regulations. To learn more about pesticide regulations check: California Code of Regulations, Title 3 Food and Agriculture, Division 6 Pesticides and Pest Control Operations at [www.cdpr.ca.gov/docs/legbills/calcode/subchpte.htm](http://www.cdpr.ca.gov/docs/legbills/calcode/subchpte.htm)

## Ergonomic Hazards

Ergonomic hazards are caused by poor equipment and job design. These produce unnecessary wear and tear on the body. The result can be pain and eventual damage to the hands, arms, neck, back, feet or legs.

Risk factors for ergonomic injuries include:

- **Repetition:** Performing the same motion over and over again
- **Excessive Force:** Using physical effort such as pushing, pulling or lifting
- **Awkward Posture:** Working in a way that puts strain on the body, such as stooping, kneeling, bending, reaching overhead, or staying in one position for too long
- **Direct Pressure:** Prolonged contact with a hard surface or edge
- **Vibration:** working with vibrating tools or equipment.

## Other Occupational Health and Safety Hazards

There are also other workplace conditions that can cause harm over time. Some examples are:

- **Temperature Extremes:** either too hot or too cold temperatures are a health hazard. People who work where it is too cold and/or wet may suffer loss of dexterity, hypothermia and even frostbite. Heat stress occurs when the body is unable to maintain a normal temperature and overheats. *(Employers of outdoor workers must have a Heat Illness Prevention program. See box on page 25 for more information on Title 8, CCR §3395).*
- **Stress:** there are many factors in the work environment that can create anxiety, frustration and fear. The body's response to chronic stress can lead to high blood pressure, heart disease and emotional disorders. Causes of stress can include too much work in a limited amount of time, harassment or discrimination, job insecurity and threat of workplace violence.
- **Night Work:** if employees work at night, the employer must include in their IIPP an evaluation of night work hazards, training about safe work practices, inspections, and how they will address the hazards to protect workers, etc.

**Note: For answers to technical questions about work-related health and safety issues, contact WOSHTEP staff at one of the Resource Centers and/or Cal/OSHA Consultation Service.**

## 2. Investigating Job Hazards

Tools that can help identify hazards in the workplace include:

- Worksite inspections, including assessment of equipment and work practices
- The Log of Work-related Injuries and Illnesses (Cal/OSHA Log 300)
- Hazard Mapping (a large outline of the worksite where workers mark the hazards)
- Job task analysis (breakdown of tasks and associated risks)
- Workers' compensation records
- Inspection records from Cal/OSHA and other agencies (for example: Department of Pesticide Regulation, Environmental Protection Agency, fire department, health department) including any citations or fines
- An inventory of hazardous materials, including pesticides and other chemicals in use and their Safety Data Sheets\* (SDSs)
- Manufacturers' manuals, operating instructions, and safety literature for tools and equipment
- Maintenance records for equipment and machinery
- Incident/accident investigation records, including underlying causes of the incident and what was done to prevent similar incidents in the future
- The workplace's written safety programs, such as the Injury and Illness Prevention Program (IIPP) required by Cal/OSHA
- The workplace's written policies and procedures for performing specific tasks and using specific tools and equipment
- Monitoring records showing exposure to pesticides and other chemicals, noise and other hazards
- Any required medical test records, such as hearing or blood lead level tests
- Interviews with workers and managers

It is a good idea to use more than one method of identifying job hazards. Be sure to do regular worksite inspections, but also talk with workers to clarify your observations and add insight. For example, ask: Are things usually like this? Is there anything else I should look at? To get the best information from the people being asked, it is best to talk to them privately. Hold the conversations away from other people and offer to keep the person's name confidential if necessary.

\* Safety Data Sheets (SDS) were formerly known as Material Safety Data Sheet or MSDSs.



### 3. Why Do Worksite Injuries and Illnesses Happen?

There could be multiple underlying causes of an incident. Try to identify underlying problems before an accident occurs. If there is an accident or “near miss,” learn from it. There are usually multiple factors that contribute to an incident so examine all the possibilities. The following list may help. Look at:

#### Job Tasks and Procedures

- Physical and mental demands of a task
- Pace of work and overall workload
- Clear, realistic procedures for job tasks
- Emergency procedures

#### Work Environment

- Machinery / tools
- Work area / facility layout and space
- Temperature, noise, and air quality
- Access to safety and emergency equipment

#### Management and Organization

- Commitment of resources for safety and accountability
- Communication and reporting systems
- Regular inspection and maintenance
- Staffing and scheduling

#### Workforce Factors

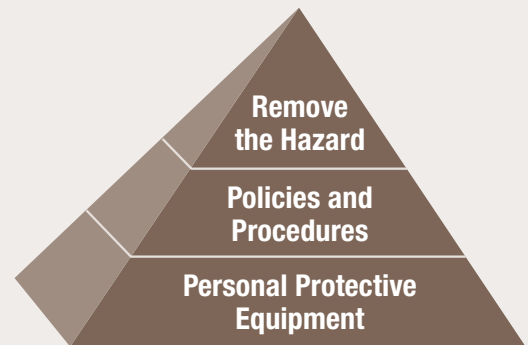
- Work experience and training
- Fatigue
- Stress
- Attitude and perception of risk
- Language differences





## 4. Controlling Hazards

Once hazards are identified, there are various methods that can be used to protect workers. There is a “hierarchy” or pyramid of possible solutions. The most effective solutions, at the top of the pyramid, are those that actually remove the hazard. Below are those solutions that reduce or limit the employee’s exposure. Often a combination of methods is needed to get the best protection.



### Remove the Hazard—Engineering Controls

The best way to protect workers from hazards is to remove the hazards from the work environment altogether or at least keep them away from workers. These methods are often called engineering controls. They directly address the hazard and do not depend on workers’ actions to be effective. Below are some examples:

- **Redesign the process:** Bring the loading trucks near the workers to reduce lifting and carrying.
- **Substitute safer products for hazardous ones:** Use pesticides that are less toxic.
- **Redesign equipment:** Avoid use of short-handled tools that prolong stooped labor. Have closed mixing and loading systems for pesticides.

## Improve Work Policies and Procedures—Administrative Controls

When the hazard cannot be eliminated altogether, another option is to set rules that will limit workers' exposure to the danger. These measures are often called **administrative controls**. Administrative controls include:

- Scheduling work early in the morning or the evening to avoid heat exposure during the hot season.
- Enforcing the Restricted Entry Interval requirements to reduce the potential worker exposure to pesticide residue.
- Rotating employees between a hazardous task and a non-hazardous task so the length of the exposure is reduced.
- Increasing the number of breaks to reduce the time of exposure to hazards like working in the hot sun.
- Providing effective worker training programs to increase workers' ability to recognize and evaluate hazards and to take action to protect themselves.
- Being sure that pesticide applicators' personal protective equipment (PPE) is periodically inspected and fits properly.

## Provide Personal Protective Equipment—PPE

A third method of reducing hazards is to use PPE. PPE is worn on the body and protects employees from exposure to a hazard. PPE includes coveralls, respirators, gloves, eye protection, safety shoes, earplugs, and hard hats. Wear PPE when other methods of hazard control are not possible. Make sure workers are provided with PPE that fits well and that they are shown how to use it properly.

PPE is usually considered less protective than the other methods because:

- It does not get rid of the hazard itself. It simply reduces the amount of exposure by placing a barrier between the hazard and the worker.
- Workers may not want to wear it because it can be uncomfortable and hot and may make it hard to communicate. It can reduce dexterity and may make the work slower.
- It has to fit well to work properly.
- It has to be the right type for the particular hazard, such as the right glove for the chemical being used.

## Appendix A

### Title 8, Section 3203:

### Injury and Illness Prevention Program Standard

- a. Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program. The program shall be in writing and shall, at a minimum:

1. Identify the person or persons with authority and responsibility for implementing the Program.
2. Include a system for ensuring that employees comply with safe and healthy work practices. Substantial compliance with this provision includes recognition of employees who follow safe and healthful work practices, training and retraining programs, disciplinary actions, or any other such means that ensures employee compliance with safe and healthful work practices.
3. Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. Substantial compliance with this provision includes meetings, training programs, posting, written communications, a system of anonymous notification by employees about hazards, labor/management safety and health committees, or any other means that ensures communication with employees.

*Exception: employers having fewer than 10 employees shall be permitted to communicate to and instruct employees orally in general safe work practices with specific instructions with respect to hazards unique to the employees' job assignment, in compliance with subsection (a)(3).*

4. Include procedures for identifying and evaluating workplace hazards including scheduling periodic inspections to identify unsafe conditions and work practices. Inspections shall be made to identify and evaluate hazards:
  - A. When the Program is first established;

*Exception: Those employers having in place on July 1, 1991, a written Injury and Illness Prevention Program complying with previously existing Section 3203.*
  - B. Whenever new substances, processes, procedures, or equipment are introduced to the workplace that represent a new occupational safety and health hazard; and
  - C. Whenever the employer is made aware of a new or previously unrecognized hazard.
5. Include a procedure to investigate occupational injury or occupational illness.



6. Include methods and/or procedures for correction of unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard:

A. When observed or discovered; and

B. When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition, employees necessary to correct the hazardous condition shall be provided the necessary safeguards.

7. Provide training and instruction:

A. When the program is first established;

*Exception: Employers having in place on July 1, 1991, a written Injury and Illness Prevention Program complying with the previously existing Accident Prevention Program in Section 3203.*

B. To all new employees;

C. To all employees given new job assignments for which training has not previously been received;

D. Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard;

E. Whenever the employer is made aware of a new or previously unrecognized hazard; and

F. For supervisors to familiarize them with the safety and health hazards to which employees under their immediate direction and control may be exposed.

b. Records of the steps taken to implement and maintain the Program shall include:

1. Records of scheduled and periodic inspections required by subsection (a)(4) to identify unsafe conditions and work practices, including person(s) conducting the inspection, the unsafe conditions and work practices that have been identified and action taken to correct the identified unsafe conditions and work practices. These records shall be maintained for one (1) year; and

*Exception: Employers with fewer than 10 employees may elect to maintain the inspection records only until the hazard is corrected.*

2. Documentation of safety and health training required by subsection (a)(7) for each employee, including employee name or other identifier, training dates, type(s) of training, and training providers. This documentation shall be maintained for one (1) year.

*Exception No. 1: Employers with fewer than 10 employees can substantially comply with the documentation provision by maintaining a log of instructions provided to the employee with respect to the hazards unique to the employees' job assignment when first hired or assigned new duties.*

*Exception No. 2: Training records of employees who have worked for less than one (1) year for the employer need not be retained beyond the term of employment if they are provided to the employee upon termination of employment.*

*Exception No. 3: California Labor Code §6401.7 states that for employers with fewer than 20 employees who are in industries that are not on a designated list of high-hazard industries established by the Department of Industrial Relations (Department) and who have a Workers' Compensation Experience Modification Rate of 1.1 or less, and for any employers with fewer than 20 employees who are in industries on a designated list of low-hazard industries established by the department, written documentation of the Program may be limited to the following requirements:*

- A.** Written documentation of the identity of the person or persons with authority and responsibility for implementing the program as required by the subsection (a) (1).
- B.** Written documentation of scheduled periodic inspections to identify unsafe conditions and work practices as required by subsection (a)(4).
- C.** Written documentation of training and instruction as required by subsection (a)(7).

*Exception No. 4: California Labor Code §6401.7 states that local governmental entities (any county, city and county, or district, or any public or quasi-public corporation or public agency therein, including any public entity, other than a state agency, that is a member of, or created by, a joint powers agreement) are not required to keep records to keep records concerning the steps taken to implement and maintain the Program.*

Note 1: Employers determined by the Division to have historically utilized seasonal or intermittent employees shall be deemed in compliance with respect to the requirements for a written program if the employer adopts the Model Program prepared by the Division and complies with the requirements set forth therein.

Note 2: Employers in the construction industry who are required to be licensed under Chapter 9 (commencing with Section 7000) of Division 3 or the Business and Professions Code may use records relating to employee training provided to the employer in connection with an occupational safety and health training program approved by the Division, and shall only be required to keep records of those steps taken to implement and maintain the program with respect to hazards specific to the employee's job duties.

- c. Employers who elect to use a labor/management safety and health committee to comply with the communication requirements of subsection (a)(3) of this section shall be presumed to be in substantial compliance with subsection (a)(3) if the committee:
  - 1. Meets regularly, but not less than quarterly;
  - 2. Prepares and makes available to the affected employees, written records of the safety and health issues discussed at committee meetings, and maintained for review by the Division upon request. The committee meeting records shall be maintained for one (1) year;
  - 3. Reviews results of the periodic, schedules worksite inspections;
  - 4. Reviews investigations of occupational accidents and causes of incidents resulting in occupational injury, occupational illness, or exposure to hazardous substances and, where appropriate, submits suggestions to management for the prevention of future incidents;
  - 5. Review investigations of alleged hazardous conditions brought to the attention of any committee member. When determined necessary by the committee, the committee may conduct its own inspection and investigation to assist in remedial solutions;
  - 6. Submits recommendations to assist in the evaluation of employee safety suggestions; and
  - 7. Upon request from the Division verifies abatement action taken by the employer to abate citations issued by the Division.

## Appendix B

### Title 8, Section 3395, Heat Illness Prevention Standard

This law applies to all outdoor places of employment, including agriculture. It requires that employers have a plan that includes:

- **Training**—effective training for supervisors and workers on the following topics:
  1. Exposure to environmental and personal risk factors for heat illness;
  2. The employer's procedures for complying with the requirements of the standard;
  3. The importance of drinking water and of allowing for acclimatization;
  4. The types of heat illness as well as common signs and symptoms; and
  5. The employer's procedures for responding to symptoms of heat illness.
- **A plan for emergencies**—including the procedures for contacting emergency medical services and making sure workers know how to provide emergency responders with clear and precise directions to the worksite.
- **Plenty of cool, fresh water**—enough water to provide one quart per employee per hour for the entire shift.
- **Shade and rest**—shade is required to be present at all times when temperature exceeds 85°. There should be enough shade to accommodate 25% of the workers of the shift at any time, so they can sit in a normal posture without physical contact with each other.
- **Acclimatization**—time for workers to get use to the heat.
- **High-heat procedures**—when the temperature equals or exceeds 95° the employer must:
  - (1) observe workers for alertness and for signs of heat illness;
  - (2) remind workers to drink plenty of water;
  - (3) ensure that effective communication by voice, observation or electronic means is maintained, so workers can contact their supervisor when necessary; and
  - (4) close supervision to new workers to be sure they are properly prepared for outdoor work.

The Heat and Illness Prevention Plan can be integrated into the IIPP.



## Appendix C

# List of Training Topics

- Safe practices for operating any agricultural equipment, including procedures for cleaning, repairing and adjusting<sup>1</sup>
- Electrical hazards<sup>1</sup>
- Heat illness prevention<sup>1</sup>
- Ergonomic hazards, including proper lifting techniques and working on ladders or in a stooped posture for long periods at a time
- Hazardous chemical exposures<sup>1</sup>
- Machine guarding belts and pulleys, gears and sprockets and conveyor nip points
- Lock-out / tag-out procedures<sup>1</sup>
- Correct use of PPE, including respirators
- Other job-specific hazard (explain) \_\_\_\_\_
- Other job-specific hazard (explain) \_\_\_\_\_
- Other job-specific hazard (explain) \_\_\_\_\_
- Other job-specific hazard (explain) \_\_\_\_\_
- Other job-specific hazard (explain) \_\_\_\_\_
- Other job-specific hazard (explain) \_\_\_\_\_

<sup>1</sup> Training on this topic is required by at least one Cal/OSHA standard.

## Notes

[illegible]

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