

# Temporary Heaters, Office Safety, Pesticides & Food & Water

# OSHA Requirements for Temporary Heaters

## Purpose

Construction projects may utilize temporary heaters when the temperature gets cold. It's crucial to keep a project moving and temporary heaters can be an asset for staying on schedule. They are particularly beneficial in the winter months for thawing ground, curing concrete, and general drying/warming purposes within the buildings as well as the job trailers / remote offices. However, while temporary heaters are helpful, they can quickly become hazardous, and potentially lead to fire if improperly installed and maintained.

Fires are the main reason to take temporary heater safety precautions. Unvented and self-contained heaters are used most often on jobsites. Proper venting is an important consideration when using temporary heaters. Additionally, improper installation and clearance are the main causes of accidents.

## Policy

**According to OSHA (1926.154), when implementing a temporary heating device, there are five standards that one must adhere to:**

1. **Ventilation.** Fresh air or mechanical ventilation must be provided for safety, proper combustion, and temperature management.
2. **Clearance and mounting.**
  - At a minimum, circulating heaters must be placed 12" from a room's sides and rear, and 18" from its chimney connector.
  - Radiant heaters must be placed at least 36" from a room's sides and rear, and 18" from its chimney connector. Temporary heaters with shorter clearances may be installed accordingly.
  - Heaters which are not safe for direct placement on the floor must rest on heat-insulating material, at least 1 in. of concrete, or its equivalent. The heat-insulating material must extend 2 ft. beyond the heater in all directions.
  - Heaters must be located at least 10 ft. from any coverings (ex. tarpaulins, canvas) and these coverings must be severely fastened to avoid becoming ignited or knocking away the heater.
3. **Stability.** Unless the manufacturer's markings permit otherwise, heaters in use must be set horizontally level.

4. **Solid fuel salamanders.** Solid fuel salamanders are prohibited in buildings and on scaffolds.
5. **Oil-fired heaters.** Flammable, liquid-fired heaters must have a primary safety control, neither barometric nor gravity oil feed, that stops fuel in the event of flame failure. Barometric or gravity oil feed heaters can only be used with integral tanks. Heaters used with separate supply tanks can be directly connected for gravity feed, or an automatic pump, from a supply tank.

### ***Choosing a Portable Heater***

There are a few different types of temporary heaters to choose from:

- Electric Heaters
- Direct Fired Heaters
- Indirect Fired Heaters

Let's talk about the benefits and hazards of each type.

#### **Electric Heaters**

Electric heaters are quiet and clean. They can be used both indoors and outdoors. Because there's no combustion, there's no need for additional ventilation making this a safe choice. Electric heaters don't add to the humidity levels, so they can be used for dry out applications, such as concrete curing. Electric heaters come in many sizes to fit your needs, provided you have the electrical power needed. Some are equipped with thermostats giving you a level of control over the amount of heat generated.

As with all portable heaters, you'll need to take care in where you set it up, allowing for proper clearances and away from combustible materials. Ensure the electrical output is enough for the heater you're using. Inspect the power cords, plugs, and other safety features prior to use. Never use a unit that appears to be damaged. Look for units that have an auto-shut-off feature if unit gets knocked over or overheats. Electric heaters should not be used in areas that are or could become wet.

#### **Direct Fired Heaters**

A direct fired heater uses propane, natural gas or diesel fuel to heat the space. In these systems, air is forced directly through a flame providing direct heat. These types of heaters are great for large spaces such as warehouses or large construction sites. A high amount of heat can be generated with a small unit, and they are more fuel-efficient than their indirect-fired cousin. These units also have built-in thermostats to help you maintain a constant temperature.

The major hazard associated with direct fired heaters is ***carbon-monoxide poisoning*** due to fuel combustion and poor ventilation of the space. These types of heaters cannot

be used in small or tightly sealed spaces for this reason. Additionally, because you're dealing with an open flame, take care when sweeping dust or sawdust that could catch fire near a direct fired heater.

### **Indirect Fired Heaters**

An indirect fired heater is very similar to a direct fired unit in that it burns propane, natural gas, or diesel fuel to create heat. The main difference is what makes an indirect unit a better choice in terms of safety – the combustion takes place inside a burn chamber and releases the exhaust outdoors. This means the indoor air is safe to breathe for your employees and subcontractors. The air blown into the space is also dry which makes this a good option for dry out applications. The units are usually larger and placed outside with ducting used to bring the warm air into the space.

### **Temporary Heater Safety Tips**

- Always read the instructions on the side of the heating unit, which will vary from unit to unit.
- Inspect units prior to use daily and never use a heater that appears to be damaged.
- Keep heaters away from any combustible material.
- Choose a heater size that's appropriate for the square footage.
- Use heaters certified by a national testing laboratory.
- Propane tanks must be secured to prevent tip-over.
- Keep propane cylinders at least 10 feet away from the heater.
- Replacement LP gas cylinders in storage cannot be kept inside of buildings.
- Don't use any below grade LPG or LP. Propane settles in low areas. For example, in a basement without an exit, any spark or flame could ignite the gas concentration to create a damaging explosion.
- ***When using direct fired heaters, install CO detectors in the area to monitor carbon monoxide buildup.***
- In case of an emergency, place a fully charged and inspected fire extinguisher within 50 feet of an active unit.
- Never leave a heater running unattended. A fire watch is required for overnight activity.
- Turn off the heater and allow it to cool down before refueling.
- Turn off the gas supply when heaters are not in use.
- Keep gas lines and ducting out of walkways to avoid tripping hazards.

# Office Safety

## **Purpose**

To establish guidelines for providing safety in both general office and project office locations.

## **Policy**

### **Office Machines**

- Machines should not be placed near the edge of tables or desks.
- Machines that creep or vibrate during operation should be secured in a manner to prevent movement.

### **File Cabinets**

- File cabinets should be placed against walls or columns. When possible, the cabinets should be secured against tipping.
- Do not overload drawers. Open only one drawer at a time to prevent the cabinet from tipping over.
- Do not leave file drawers open.

### **Floors**

- All floor finishes and/or carpets should be selected for anti-slip qualities. Well maintained floors/carpets will provide protection against slips and falls.
- Defective tile or carpet should be repaired immediately.

### **Passageways/Aisles**

- A minimum of four (4) feet should be established for aisles. Obstructions such as waste baskets, telephone and electrical outlets, low tables and office equipment must be kept where they do not present tripping hazards.
- Stairways should be protected with anti-slip material.
- Doors should not open into the path of employee travel.

### **Electrical**

- Electrically operated machines and extension cords require that outlets and extension cords be arranged to avoid tripping hazards. IF extension cords are

required, they must be secured and covered to eliminate tripping hazards. Extension cords shall be capable of carrying intended power loads.

- Circuits providing power to office machines must be adequately sized.
- Do no overload wall outlets.

### **Material Storage**

- Materials should be stored so that in gaining access to these materials, normal office traffic does not have to be crossed.
- Materials should be stored neatly so that they will not fall or cause a tripping hazard.
- Flammable or hazardous liquids used in offices must be stored and dispensed from approved safety containers. Bulk storage must be in a properly constructed fireproof room or cabinet.

### **Lighting and Ventilation**

Adequate lighting and ventilation must be provided in accordance with applicable standards.

### **Ladders/Stools**

Ladders and stools used for reaching high storage should have either non-skid safety feet attached or be equipped with brakes that automatically lock when weight is applied.

### **Fire Protection, Prevention, and Emergencies**

Good housekeeping is essential in preventing fires. No open flame in the office (candles, oil lamps, etc.) as this presents a serious fire hazard.

Portable fire extinguishers must be conspicuously located and labeled. Extinguishers must be inspected and tagged annually and maintained in a fully charged condition.

Smoke detectors and/or alarm systems should be checked once a month for proper operation.

A fire emergency procedure and a basic emergency plan must be developed for each office complex. Emergency phone numbers for fire, police or medical emergencies must be posted at each phone.

## ERGONOMICS – OFFICE WORKSTATION

### **Chair**

- Adjust the height of the chair so that the employee's feet are flat on the floor, with the knees bent at approximately 90 degrees (if the feet are not flat on the floor with the chair to the lowest position, a footrest will be needed).
- The employee should be sitting with his/her back against the seat back to provide good lumbar support. The employee may wish to try another type of chair. Another solution may be a back support pillow to provide lumbar support.

### **Keyboard**

- Raise or lower the keyboard surface so that the home row of keys (ASDFGHKL) are about level with the employee's elbows. The elbows should be at approximately 90 degrees, with the wrists straight.
- The employee's hands should not be resting on the desk during typing; this may lead to bent wrists and put pressure on the tendons and nerves in the wrists. Ample space should be available in front of the keyboard to rest hands between periods of typing or for an optional wrist rest.

### **Mouse**

- The mouse should be positioned as close as possible to the keyboard to avoid reaching or sitting with an outstretched arm.

### **Monitor**

- Place the monitor in front of the employee.
- Raise or lower the monitor surface so the top of the monitor is at eye level. (Note: For employees wearing bifocal glasses, the monitor may need to be lowered.)
- If hardcopy documents are used during typing, the document should be placed next to the monitor, same height, and same distance from the employee as the monitor. Use an appropriate document holder.

### **Eye Discomfort**

- Brightness and contrast controls should be set at a comfortable level. If there is glare on the screen, locate the source and take measures to eliminate or reduce it. A glare screen may help as a last resort.

- Employees should move their eyes in a different direction periodically throughout the day to relieve eye strain. Look into the distance periodically. Try to blink often and close eyes from time to time.

### **Telephone**

- If the employee is required to type on a computer while speaking on the phone for the majority of the workday, the use of a headset will eliminate the need to cradle the phone between the neck and shoulder.

### **Work Surface Layout**

- Employees need to minimize reaching. Employees should position equipment so frequently used items are within comfortable arm's reach and less used items are located further away.

## **Pesticides**

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Each person performing pest control shall:

- Use only pest control equipment which is in good repair and safe to operate.
- Perform all pest control in a careful and effective manner.
- Use only methods and equipment suitable to ensure the proper application of pesticides.
- Perform all pest control under climatic conditions suitable to ensure proper application of pesticides.
- Exercise reasonable precautions to avoid contamination of the environment. A copy of the registered labeling that allows the manner in which the pesticide is being used shall be available at each use site.
- Concentrate pesticides shall be weighed or measured accurately using devices that are calibrated to the smallest unit in which the pesticide is being weighed or measured. A uniform mixture shall be maintained in both application and service rigs.
- Pest control equipment shall be thoroughly cleaned when necessary to prevent illness or damage to persons, plants, or animals from residues of pesticides previously used in the equipment.
- Each service rig and piece of application equipment that handles pesticides and draws water from an outside source shall be equipped with air-gas separations, reduced pressure principle backflow prevention device, or double-check valve assembly.
- Backflow protection must be acceptable to both the water purveyor and the local health department.

## Age of Operator

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Minors under 18 years of age shall not be permitted to mix or load a pesticide that, in any use situation, requires either air-supplied respiratory protection; closed systems; or full body chemical resistant protective clothing.

## Protection From Pesticides

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An applicator prior to and while applying a pesticide shall evaluate the equipment to be used, meteorological conditions, the property to be treated, and surrounding properties to determine the likelihood of harm or damage. No pesticide application shall be made or continued when there is a reasonable possibility of either:

- Contamination of the bodies or clothing of persons not involved in the application process.
- Damage to non-target crops, animals, or other public or private property; or,
- Contamination of non-target public or private property, including the creation of a health hazard, preventing normal use of such property.

## Notice of Pesticide Application

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Each person performing pest control must give notice to the owner or operator of the property to be treated before any pesticide is applied. The operator of the property shall give notice to all persons known to be on such property or likely to enter. Such notice shall be adequate to advise of the nature of the pesticide and the precautions to be observed as printed on the registered label or included in applicable laws or regulations.

## Operator Identification Numbers

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Prior to the purchase and use of pesticide(s) for the production of an agricultural commodity, the operator of the property (or the operator's authorized representative) shall obtain an operator identification number from the commissioner of each county where pest control work will be performed. The operator shall provide each pest control business applying pesticides to such property with his or her operation identification number.

This also applies to the following pesticides, when they are not used for the production of an agricultural commodity (e.g., post-harvest agricultural commodities and certain nonagricultural sites):

- (1) Any pesticide for agricultural use, excluding those for use only on livestock, and
- (2) any pesticide for industrial use as a post-harvest commodity treatment.

### Pest Control Business Operations

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Each person engaged for hire in the business of pest control shall keep each ground rig, service rig, and similar equipment used for mixing or applying pesticides conspicuously and legibly marked with either the business' name or with "Licensed Pest Control Operator," "Fumigation Division," "Licensed Fumigator" or substantially similar wording and the pest control operator license number of the person or firm. The markings shall be large enough to be readable at a distance of 25 feet.

Each person engaged for hire in the business of pest control shall have available a copy of both the written recommendation and the use permit covering each agricultural use application of a pesticide that requires a permit. Each person engaged for hire in the business of pest control shall report to the commissioner as soon as practicable, by the most expedient method, any forced landing, or emergency or accidental release of pesticides. Such report shall include the location, the pesticide, and estimated amount. Each person engaged for hire in the business of pest control shall maintain records of and report on each pesticide use, in the manner prescribed in the Food and Agriculture Code and shall identify the qualified person who made or supervised the application.

### ***Training & Practices***

#### Worker Safety Responsibilities

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Both the employer and each employee shall comply with each pesticide regulation which is applicable to his own action and conduct. The employer is responsible for knowing about the applicable safe use requirements specified in state and federal regulations and on the pesticide label, and the employer shall inform the employee in the language he/she understands of the specific pesticide being used and the protective clothing, equipment and work procedures to be followed.

The employer shall supervise employees so that safe work practices including all applicable regulations and label requirements are complied with, and the Employer requires employees to follow safe work practices. The Employer shall inform employees of pesticide safety hazards and pesticide safety regulations applicable to all activities they may perform, and employees must handle and use pesticides in accordance with the requirements of law, regulations, and label requirements.

## Employee Pesticide Training

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The employer shall have a written training program for employees who handle minimal exposure to pesticides. The written program describes the materials (e.g., study guides, pamphlets, pesticide labels, Pesticide Safety Information Series leaflets, slides, videotapes) and information that will be provided and used to train his or her employees. The written program shall address each of the subjects specified in subsection (b) The employer shall maintain a copy of the training program for two years at the location where employee training records are kept.

The employer provides training for each employee who handles any pesticide as to each of the following subjects:

- The immediate and long-term hazards involved as identified in laboratory animals (e.g., tumors, cancer, and other effects due to repeated or continuous exposure, birth defects, or an effect on parental reproductive performance);
- The safety procedures to be followed.
- The clothing and protective equipment to be used.
- The common symptoms of pesticide poisoning and the ways poisoning or injury from pesticides can occur.
- Where to obtain emergency medical treatment.
- The purposes and requirements of medical supervision.
- Applicable laws, regulations, and label requirements.
- The need for immediate decontamination of skin and eyes when exposure occurs.
- The contents of the Pesticide Safety information location.

## Information Series Leaflets

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The employer shall post copies of the appropriate Pesticide Safety Information Series leaflets in a prominent location at the workplace where the employee begins the workday. If there is no designated workplace, the employer shall provide copies of the leaflets to each employee. Training shall be completed before the employee is allowed to handle pesticides and at least annually thereafter.

Initial training may be waived if the employee is a certified commercial applicator or submits a record that training was received within the last year and a letter from the previous employer documenting satisfactory work practices. The employer shall record the date and extent of initial and annually required training given to the employee and the job to be assigned. This record shall be verified by the employee's, employer's, and trainer's signature and retained by the employer for two years at the employee's permanent assigned work location.

## Closed Systems

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Closed systems shall be provided for employees that mix or load liquid pesticides in toxicity category one or load diluted liquid mixes derived from dry pesticides in toxicity category one, for the production of an agricultural commodity. No employee shall transfer, mix, or load these pesticides except through a closed system. These requirements do not apply to employees who handle a total of one gallon or less of pesticides in the toxicity category one per day exclusively in original containers of one gallon or less.

## Working Alone with Pesticides

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An employee mixing, loading, or applying a pesticide in toxicity category one for production of an agricultural commodity may not work alone during daylight hours unless personal, radio, or telephone contact is made to a responsible adult at intervals not exceeding two hours. An employee mixing, loading, or applying a pesticide in toxicity category one for production of an agricultural commodity may not work alone during nighttime hours unless personal, radio, or telephone contact is made to a responsible adult at intervals not exceeding one hour. A pilot, mixer-loader, and/or flagger team is considered as working together. In the case of two ground applicators working in the safe field, no additional person is necessary if they can see each other or each other's application vehicles.

## Field Worker Safety

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No person shall apply any pesticide in such manner that it contaminates the body or clothing of any employee during the application process, except for employees who are involved in the application process and who are wearing the appropriate protective clothing and/or equipment. Fieldwork supervisors shall be informed of what posting means, the activities prohibited during a reentry interval, where to go for emergency medical care, and the usual symptoms of organophosphate and carbamate poisoning. Emergency medical care for employees that enter fields that have been treated with pesticides shall be planned for in advance.

## Field Reentry After Application

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Employees shall not be permitted to enter any field treated with a pesticide until the pesticide spray has dried or the pesticide dust has settled except in case of emergency. Production or harvesting operations do not constitute an emergency. The waiting period

for the drying or settling to occur need not exceed 24 hours. A treated field may be entered by an employee without restriction after the pesticide has dried or the pesticide dust has settled, except: (1) when the labeling of the pesticide specifies a longer reentry interval or, (2) when a longer re-entry interval is specified in the regulations of the Food & Agriculture Code.

When a pesticide in toxicity category one, or a minimal exposure pesticide is being applied through an irrigation system, but before the application starts, signs shall be posted that state in English and Spanish, *"Danger, Pesticides are applied in water through the irrigation system. Do not drink water from the irrigation system."* These signs shall be readable at 25 feet, shall be posted at all the usual points of field entry, and shall be placed at intervals not exceeding 600 feet around the field. The use of an additional third language is permissible. Unless treatment occurs weekly or at more frequent intervals, signs shall be removed no later than five days after application. As an alternative, there shall be on-site a sufficient number of persons to prevent unauthorized employees from entering and any employee from drinking from the irrigation system.

## **Facilities / Equipment for Use**

### Change Area:

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For any employee who regularly handles pesticides in toxicity categories one or two, there shall be, at the place where employees complete their workday, an area where employees may change clothes and wash themselves. Clean towels, soap, and adequate water shall be available to allow for thorough washing. Employees are instructed to thoroughly shower with warm water and soap as soon as possible after the end of each work shift. The employer shall provide a clean, pesticide-free place where employees may store any personal clothing not in use while at work handling pesticides.

### Washing Facilities:

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Clean water, soap, and towel(s) for routine washing of hands and face, and for emergency washing of the entire body shall be available for all employees at the worksite where they mix or load pesticides in toxicity categories one or two. A minimum of ten gallons of water shall be present at the beginning of each workday for one employee and a minimum of 20 gallons for two or more employees. This water shall be stored separately from that used for mixing with pesticides unless the tank holding water for mixing with pesticides is equipped with appropriate valves to prevent the backflow of pesticides into the water. Any other easily available supply of clean water within 100 feet of the mixing and loading site is satisfactory for the purposes of this section.

## Work Clothing

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The employer shall provide clean work clothing for each employee who handles any pesticide in toxicity category one or two. Employees shall:

- Start each workday wearing clean work clothing whenever then handle pesticides in toxicity categories one or two;
- Change out of their work clothing and wash at the end of the workday;
- Not take home potentially contaminated work clothing;
- Remove and store contaminated work clothing in a sealable container outside of their own living quarters for later return to the employer,

The employer shall:

- Provide for cleaning of work clothing and
- Inform the person or firm doing the laundry that they will receive pesticide-contaminated clothing which should be laundered separately.
- Provide at the mixing and loading site at least one change of clean work clothing.

## Safety Equipment:

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The employer shall provide all necessary safety equipment and provide for its cleaning, repair, and replacement when necessary. The employer shall require that all personal protective equipment be maintained and kept in a clean, specially designated place or locker when not in use. This clothing and equipment shall remain the property of the employer. Safety equipment shall be provided and maintained in accordance with the regulations of the Food and Agriculture Code.

## Equipment Safety:

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Equipment used for mixing, loading, or applying pesticides shall be kept in good repair and shall be safe to operate. Equipment with any safety defect shall be repaired or altered to remove the hazard before further use.

All openings on tanks used for mixing or applying pesticides shall be equipped with covers that will prevent splashes and spills. Fixable hoses carrying liquid pesticides in toxicity categories one or two under pressure shall not pass unshielded through the cockpit of an airplane or helicopter. Shut-off devices shall be installed on the exit end of all hoses carrying liquid pesticides in toxicity categories one or two from mixing tanks that are adequate to prevent splashes onto the employee doing the loading when filling operations are stopped and the filler hose is removed from the inlet to the tank of the

application vehicle. As an alternative, a reversing action pump or a similar system may be used that will empty the hose and will eliminate dripping of liquid from the end of the hose when the filling operation is stopped. Each tank with a capacity of more than 49 gallons that is used to mix or apply any liquid mixture derived from a pesticide in toxicity categories one or two, shall have either, A properly functioning means to indicate externally the internal liquid level in the tank such as a sign gauge; or The tank or the filler hose nozzle shall have a device that will automatically stop the filling operation before the pesticide liquid mixture spills over the top.

#### Equipment Maintenance:

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Persons who own or operate pesticide mixing, loading, or application equipment shall inform each employee under their control who may be involved in the cleaning, servicing, or repair of that equipment of the hazards of the pesticides that person may encounter and the methods of protecting against personal injury. If such cleaning, servicing, or repairing is to be performed by persons not under the control of the owner or operator of the equipment, he shall so notify the person in charge of performing these services. Employees who clean, service, or repair mixing, and application equipment shall be provided and must use, with any necessary protective equipment or clothing, and shall be instructed and supervised in the maintenance operation in a manner that will reduce workplace hazards.

#### Emergency Medical Care

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The employer shall locate a facility where emergency care is available for employees who will be working in treated fields. The employees or their supervisor in the field shall be informed of the name and location of a physician or medical facility where emergency medical care is available and if the identified facility is not reasonably accessible from that work location, the procedures to be followed to obtain emergency medical care. When there are reasonable grounds to suspect that an employee has a pesticide illness or when exposure to a pesticide has occurred that might reasonably be expected to lead to an employee's illness, the employee is taken to a physician immediately. Hand-washing facilities shall be available.

Employees shall be informed of the name and location of a facility where emergency medical care is available for employees who will be handling pesticides. The employer shall post in a prominent place at the worksite, or work vehicle if there is no designated worksite, the name, address, and telephone number of a facility able to provide emergency medical care whenever employees will be handling pesticides and, if the identified facility is not reasonably accessible from that work location, procedures to be followed to obtain emergency medical care. When there are reasonable grounds to

suspect that an employee has a pesticide illness or when exposure to a pesticide has occurred that might reasonably be expected to lead to an employee's illness, the employee shall be taken to a physician immediately.

### Medical Supervision

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Whenever an employee handles a pesticide in toxicity category one or two that contains an organophosphate or carbamate, for the purpose of producing an agricultural commodity, the employer shall maintain use records that identify the employee, name of the pesticide, and the date. An employee that regularly handles pesticides shall have a written agreement signed by a physician, that includes the names and addresses of both the physician providing the medical supervision and the employer responsible for the employees, stating that the physician has agreed to provide medical supervision and that the physician possesses a copy of, and is aware of the contents of the document "*Medical Supervision of Pesticide Workers-Guidelines for Physicians*" (available from the Department of Health Services). A copy of this agreement shall be given to the commissioner by the employer no later than when an employee begins to regularly handle pesticides. All covered employees shall have a baseline red cell and plasma cholinesterase determinations. Baseline values shall be verified every two years. For new employees, the medical supervisor may accept previously established baseline values if they are obtained in accordance with these regulations by the same laboratory methodology and are acceptable to the laboratory which will analyze the new employee's blood samples.

Each employee, not previously under medical supervision associated with the employer, must have his red cell and plasma cholinesterase determinations within three working days after the conclusion of each 30-day period in which pesticides are regularly handled. After three tests at 30-day intervals, further periodic monitoring shall be at intervals specified in writing by the medical supervisor except for verification of baseline as specified above. Where the medical supervisor has made no written recommendation for continued periodic monitoring, the testing interval shall be 60 days. Records of the agreement to provide medical supervision, use records, all recommendations received from the medical supervisor, and all results of cholinesterase tests required to be made, shall be maintained for three years. The name, address, and telephone number of the medical supervisor shall be posted in a prominent place at the locale where the employee usually starts the workday or, if there is no locale where the employee usually starts the workday, at each work site or in each work vehicle.

There shall be an investigation of the work practices of any employee whose red cell or plasma cholinesterase levels fall below 80% of the baseline. The investigation of work practices shall include a review of the safety equipment used and its condition; and the employee's work practices which included employee sanitation, pesticide handling

procedures, and equipment usage. The employer shall maintain a written record of the findings, any changes in equipment or procedures, and any recommendations made to the employee. The employer shall remove an employee from exposure to organophosphate or carbamate pesticides if the employee's plasma cholinesterase level falls to 60% or less of baseline, or if red cell cholinesterase falls to 70% or less of baseline. The employee shall be removed from further exposure until cholinesterase values return to 80% or more of their respective baseline values.

The employer shall maintain written records of the dates of removal and the dates when employees are returned to exposure. Red cell and plasma cholinesterase tests ordered by a medical supervisor for occupational health surveillance shall be performed by a clinical laboratory currently approved by the State Department of Health Services to perform these tests.

## **Storage**

### [Delivery / Storage of Pesticides](#)

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Each person who controls the use of any property or premises is responsible for all containers or equipment on the property which hold or have held a pesticide. That person or a person responsible to him shall maintain such control over the containers at all times, or store all such containers in a locked enclosure, or in the case of liquid pesticides in a container larger than 55 gallons capacity, the container shall have a locked closure. No person shall deliver a container that holds or has held a pesticide to a property unless he stores it in such an enclosure or delivers it to a person in charge of the property or his agent, or to a pest control operator or his employee.

### [Posting of Storage Areas](#)

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Signs visible from any direction of probable approach shall be posted around all storage areas where containers that hold or have held pesticides required to be labeled with the signal words "warning" or "danger" are stored. Each sign shall be of such size that it is readable at a distance of 25 feet and be substantially as follows:

**DANGER!**  
***Poison storage area all unauthorized persons keep out!***  
**KEEP DOOR LOCKED WHEN NOT IN USE**

The notice shall be repeated in an appropriate language other than English when it may reasonably be anticipated that persons who do not understand the English language will come to the enclosure.

## Container Requirements

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Except as provided in the Food and Agricultural Code pertaining to service containers, any container which holds or has held any pesticide, when stored or transported, shall carry the registrant's label. All lids or closures shall be securely tightened except for measuring devices that are not used to store or transport a pesticide. In no case shall a pesticide be placed or kept in any container of a type commonly used for food, drink, or household products.

## Service Container Labeling

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Service containers, other than those used by a person engaged in the business of farming when the containers are used on the property that the person is farming, shall be labeled with: The name and address of the person or firm responsible for the container, The identity of the poison in the container, and, The word "Danger," "Warning," or "Caution" in accordance with the label on the original container.

## Transportation of Pesticides

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Pesticides shall not be transported in the same compartment with food or feed. Pesticide containers shall be secured to vehicles during transportation in a manner that will prevent spillage onto the vehicle or off the vehicle. Paper, cardboard, and similar containers shall be covered when necessary to protect them from moisture.

## Container Rinse/Drain Procedures

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Each emptied container that has held less than 28 gallons of a liquid pesticide that is diluted for use shall be rinsed and drained by the user at the time of use by either of the following methods:

### METHOD A:

(1) Use the following amount of water or other designated spray carried for each rinse. If the size of the container is less than 5 gallons, then the amount of rinse medium should be 5 gallons. If the size of the container is over 5 gallons, then the amount of rinse medium is  $\frac{1}{5}$  the container volume.

(2) Place required a minimum amount of rinse medium in the container, replace closure securely, and agitate.

(3) Drain rinse solution from the container into tank mix. Allow container to drain 30 seconds after normal emptying.

(4) Repeat (2) and (3) above a minimum of two times so as to provide a total of three rinses; or

**METHOD B:**

(1) Invert the emptied container over a nozzle located in the opening of the mix tank which is capable of rinsing all inner surfaces of the container.

(2) Activate the rinse nozzle allowing the rinse solution to drain into the tank. The rinse shall continue until the rinse solution appears clear and a minimum of one-half of the container volume of the rinse medium has been used. A minimum of 15 pounds of pressure per square inch shall be used for rinsing.

## **Warning Notices**

### **Pesticide Warnings**

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Employees who might reasonably be anticipated to enter an area being treated or which has been treated with a pesticide for which the reentry interval has not expired shall be orally warned by the employer. Oral warnings shall be given in a language understood by employees. Posting of signs is required when any pesticide in toxicity category one, with a reentry interval of two days or more, is applied to the foliage of the following crops: broccoli, cauliflower, celery, flowers, lettuce, ornamentals, strawberries, or tomatoes.

Posting of signs is required when any pesticide in toxicity category one, with a reentry interval of two days or more, is applied during the period April 15 through harvest to the following crops: grapes, nectarines, peaches, plums, or prunes. When any pesticide is applied and the application results in a reentry interval greater than seven days, the posting of warning signs, is also required. Whenever warning signs are required: The operator of the property or agent with written authorization shall post warning signs at the usual point or points of entry.

When treated fields requiring posting are adjacent to a public right-of-way and are unfenced, warning signs shall be posted at each corner and at intervals not exceeding 600 feet in addition to the normal points of entry. Posted warning signs shall be of such durability and construction that they will remain clearly legible for the duration of the reentry interval, will be of such size so that the word "DANGER" is readable and two skull and cross-bone symbols are clearly visible at a distance of 25 feet and will read in English and Spanish languages substantially as follows: When posting is required the following sign shall be used:

**DANGER!**



**[Name of Pesticide]**  
**DO NOT ENTER DATE:**

**[Grower's Name]**

[Field Identification, if any]

When posting is required without field identification, the following sign may be used in lieu of the above:

**DANGER!**



**PESTICIDE!**  
**DO NOT ENTER**

The signs shall be posted before an application begins. The signs shall not be posted unless a pesticide application is scheduled within the next 24 hours. The signs shall not be removed during the reentry interval. Warning signs shall be removed by the operator of the property or the agent with written authorization within 5 days after the end of reentry interval and before employees are allowed to enter.

## ***Fumigation***

### [Safe-Use Requirements](#)

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When fumigant concentrations cannot be controlled and an employee's exposure exceeds the Permissible Exposure Limit (PEL) as specified by a state agency for Airborne Contaminants, or more stringent requirements by product labeling, the employer shall provide and require the employee to wear approved respiratory protective equipment. Whenever an employee may be exposed above an exposure standard to methyl bromide, sulfuryl fluoride, or any other fumigant for which only air-supplied respirator equipment is approved, the employer shall either: Require the use of air-supplied respirator equipment or employ continuous monitoring to warn employees before the PEL is

reached. The employer shall have an accident responses plan at the worksite. The plan shall provide instructions to protect employees during situations such as spills, fire, and leaks. Employees shall be trained in accident management procedures based on the plan.

if used. Pesticide warning signs shall be posted and shall remain in place until aeration is complete.

## Water & Food

### Potable Water

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Potable water shall be provided in all places of employment, for drinking, washing of the person, cooking, washing of foods, washing of cooking or eating utensils, washing of food preparation or processing premises, and personal service rooms. Portable drinking water dispensers shall be designed, constructed, and serviced so that sanitary conditions are maintained, shall be capable of being closed, and shall be equipped with a tap. Open containers such as barrels, pails, or tanks for drinking water from which the water must be dipped or poured, whether or not they are fitted with a cover, are prohibited. A common drinking cup and other common utensils are prohibited.

### Non-Potable Water

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Outlets for non-potable water, such as water for industrial or firefighting purposes shall be posted or otherwise marked in a manner that will indicate clearly that the water is unsafe and is not to be used for drinking, washing of the person, cooking, washing of food, washing of cooking or eating utensils, washing of food preparation or processing premises, or personal service rooms, or for washing clothes. Construction of non-potable water systems or systems carrying any other non-potable substance shall be such as to prevent backflow or back-siphonage into a potable water system. Non-potable water shall not be used for washing any portion of the person, cooking or eating utensils, or clothing.

Non-potable water may be used for cleaning work premises, other than food processing and preparation premises and personal service rooms: Provided, That this non-potable water does not contain concentrations of chemicals, fecal coliform, or other substances which could create unsanitary conditions or be harmful to employees.

### Toilet Facilities

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Except as otherwise indicated in this section, toilet facilities, in toilet rooms separate for each sex, are provided in all places of employment. The number of facilities to be provided for each sex shall be based on the number of employees of that sex for whom the facilities are furnished. Where toilet rooms will be occupied by no more than one person at a time,

can be locked from the inside, and contain at least one water closet, separate toilet rooms for each sex need not be provided.

Where toilet facilities will not be used by women, urinals may be provided instead of water closets. This requirement does not apply to mobile crews or to normally unattended work locations so long as employees working at these locations have transportation immediately available to nearby toilet facilities which meet the other requirements of this section. The sewage disposal method shall not endanger the health of employees. Toilet paper with a holder shall be provided for every water closet. The requirements of this subsection do not apply to mobile crews or to normally unattended work locations.

## Showers

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Showers are mandatory on exit from the job site when residual chemicals allowed to remain on the skin between work shifts could cause serious occupational illness. The employer is responsible for identifying such potential hazards and for insisting that the employee shower at the end of the shift.

Whenever showers are required, the showers shall be provided, as follows: One shower shall be provided for every 10 employees of each gender, or numerical fraction thereof, who are required to shower during the same shift. Body soap or other appropriate cleaning agents convenient to the showers shall be provided as specified in this section. Showers shall be provided with hot and cold water feeding a common discharge line. Employees who use showers shall be provided with individual clean towels. Change rooms equipped with storage facilities for street clothes and separate storage facilities for the protective clothing shall be provided if employees are subject to contamination with toxic materials.

## Food & Beverages on Premises

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This section shall apply only where employees are permitted to consume food or beverages, or both, on the premises. Eating and drinking areas. No employee shall be allowed to consume food or beverages in a toilet room nor in any area exposed to a toxic material. Waste disposal containers. Receptacles, constructed of smooth, corrosion-resistant, easily cleanable, or disposable materials, shall be provided and used for the disposal of waste food. The number, size, and location of such receptacles shall encourage their use and not result in overfilling. They shall be emptied not less frequently than once each working day, unless unused, and shall be maintained in a clean and sanitary condition. Receptacles shall be provided with a solid tight-fitting cover unless sanitary conditions can be maintained without the use of a cover.

### **Sanitary storage**

No food or beverages shall be stored in toilet rooms or in an area exposed to a toxic material.

### **Food handling**

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