

California Institute of Technology

Pesticide Management Program



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Scope

This program applies to the use of pesticides at The California Institute of Technology (Caltech).

Purpose

The purpose of this program is to ensure pesticide application at Caltech is conducted in a manner to protect workers, the public, and the environment from potential adverse effects of pesticides used.

This program is also in place to comply with the following regulations and standards relating to pesticide worker safety:

- Title 3, California Code of Regulations (CCR), Sections 6720-6746 – Pesticide Worker Safety – General Safety Requirements

Responsibilities

Housing Department Employees

- Supervise their employees to assure all safety requirements are followed
- Know the label and regulatory requirements for the safe use of pesticides
- Follow the guidance outlined in this written Pesticide Management Program

Building and Grounds Department Employees

- Supervise their employees to assure all safety requirements are followed
- Know the label and regulatory requirements for the safe use of pesticides
- Follow the guidance outlined in this written Pesticide Management Program

Environment, Health, and Safety Department

- Ensure employees are informed about the pesticides they use, the hazards involved and the precautions and work practices to follow to be safe
- Maintain this written Pesticide Management Program and ensure that it is followed by all Caltech employees involved in pesticide use, handling and application

Hazard Communication

Caltech provides employees who use pesticides with information about pesticides including the Department of Pesticide Regulation (DPR) Pesticide Safety Information Series (PSIS) leaflet N-8: Safety Rules for Pesticide Handlers in Non-Agricultural Settings.

The N-8 leaflet is filled in with information regarding emergency medical care, the location of pesticide use records and Safety Data Sheets (SDS) in the spaces provided on the leaflets prior to posting in a central location.

Caltech employees who handle and use pesticides also are trained on the Cal/OSHA Hazard Communication Standard by the Caltech Environmental Health and Safety (EHS) Department.

For the Buildings and Grounds Department:

SDSs for the pesticides can be found in the form of hardcopies in the Buildings and Grounds Office area, the storage shed, and in the pesticide applicators vehicle.

For the Housing Department:

SDSs for the pesticides can be found in the form of hardcopies in the Housing Office area near the pesticide storage shed.

Pesticide Handler/Applicator Training

All Caltech employees must be trained before handling pesticides. Training is continually updated to cover any new pesticides before handling and repeated at least every 12 months. (Certified applicators are considered trained).

The training will be performed by a qualified person and cover the following for each pesticide handled:

- Information on the pesticide label concerning human health effects
- Hazards of the pesticide, including acute and long-term effects
- Pesticide poisoning symptoms and routes pesticides can enter the body
- Emergency first aid and how to get emergency medical care
- Routine and emergency decontamination procedures
- Need for, limitations, use, and cleaning of PPE
- Prevention, recognition and first aid for heat-related illnesses
- Safe procedures for handling pesticides, including engineering controls
- Environmental concerns, such as drift and runoff
- Warnings against taking pesticides home
- Regulatory requirements, including SDSs and PSIS
- Purpose and requirements of medical supervision, when applicable
- Location of hazard communication information
- Employee rights

Training for Qualified Pesticide Handlers/Applicators

The following persons can train pesticide handler employees:

1. California certified commercial or private applicators
2. Licensed Pest Control Advisors
3. Registered Professional Forester
4. A farm advisor employed by the U.C. Extension Office
5. Persons who have a valid County Biologist License in Pesticide Regulation or Investigation and Environmental Monitoring
6. Persons who have completed an “instructor trainer” program presented by:
 - U.C. Integrated Pest Management Program.
 - Other instructor-training program approved by DPR

Training Records

Each Department at Caltech which uses pesticides maintains training records that describe the materials used to train employees, the person that provided the training, the date and extent of initial and subsequent training. The records are maintained for at least two years and kept at a central location accessible to the trained employees.

Pesticide Labeling

Pesticide labeling is the primary source for employees to know how to use the product correctly, safely, and legally. A copy of the registered labeling that allows the manner in which the pesticide is being used is made available at each use site. This includes the container labeling, along with any applicable supplemental labeling. It is a violation of State and federal law to use a pesticide in conflict with the registered labeling. Employees who use pesticides must read and comply with all instructions and precautions on the labeling.

Secondary Use Containers

Any pesticide container other than the original labeled container must be labeled with:

- Name of the applicator and Caltech address
- Name of the pesticide, and
- Signal word (*Danger, Warning, or Caution*) from the original container

Pesticides must never be placed in or kept in any container that is commonly used for food or drink.

Notification of Application

Proper notice must be given to affected parties before the application of pesticides.

The notice must be in a form and language the person(s) can understand and include:

- The date of the application
- The brand name or common chemical name of the pesticide
- All precautions to be observed, as specified on the pesticide labeling or included in applicable laws or regulations

The Building and Grounds Department conducts notification in the following manner:

1. Follow notification policy prior to pesticide applications. Notice must identify pesticide, purpose of application, areas to be treated, date and time of application, and a contact name and a phone number must be provided.
2. 72 hours' notification is required for scheduled pesticide use and 24 hours for emergency pesticide use.
3. In emergency situations, notifications will be posted in affected areas, building occupants will be notified by phone and all possible actions to reduce pesticide exposure will be taken. (Coning off area, or evacuating area).
4. Notifications and warning signs must be clearly visible from each point of entry into the treated area.

The Housing Department conducts notification in the following manner:

1. The Housing Director provides notification to the occupants of the effected pesticide application area prior to the application in the form of an email or a physical posting depending on the scope of the application.
2. The notification includes information such as the date, time and location of the application, the pesticides used, appropriate warnings regarding the pesticides, and whom to contact with questions or concerns.

Drift Prevention and Protection

Applicators are responsible for evaluating their equipment, weather conditions, the area to be treated and surrounding areas, prior to applying pesticides and throughout the application process to determine the likelihood of harm or damage.

Application will not be commenced or continued when there is a reasonable possibility of substantial drift to non-target areas or:

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

Restricted Materials

A pesticide is classified as a restricted material if it requires special handling because of its toxicity or potential effects on the environment. Restricted materials may only be purchased or applied by trained, certified applicators or those under their direct supervision.

There are two types of restricted materials:

- Federally restricted use pesticides – These pesticides can be easily identified, as the labels will prominently state *Restricted Use Pesticide*
- California restricted use pesticides – These pesticides are listed in regulation. They include various uses of pesticide, all Section 18 uses, and some federally restricted materials. Like federal restricted use pesticides, they can only be purchased and used by trained, certified applicators or those under their direct supervision.

Personal Protective Equipment (PPE)

All Personal Protective Equipment for pesticide use is available for pesticide handlers at Caltech. In order to comply with this program along with federal and state regulations employees must wear all required PPE appropriately. Employees are to clean and inspect their PPE before each use and all PPE is to remain at Caltech. Any worn, damaged or heavily contaminated PPE is to be replaced immediately.

Employees are required to use all PPE required on the labeling of each pesticide handled. Employees must also comply with the following eye and hand protection, coveralls and chemical resistant clothing regulatory PPE requirements, even if not required by the labeling:

Eye Protection

The pesticide label may specify what type of eye protection is required. If the label does not specify a particular type of eye protection it can include:

- Safety glasses (with front, brow and temple protection)
- Goggles
- Face shield
- A full-face mask as part of respiratory protection

Note: Regular eyeglasses or sunglasses do not qualify as required eye protection.

In addition to label requirements, employees are required to wear eye protection when:

- Mixing or loading pesticides
- Performing ground applications, except when:
 - Injecting or incorporating pesticides into the soil

- Spray nozzles are located below the applicator and pointed downward
- Performing hand application except for:
 - Application of vertebrate bait or use of solid fumigants
 - Baiting insect monitoring traps or applying non-insecticidal lures
- Adjusting, cleaning or repairing pesticide-handling equipment

Hand Protection

Gloves must be worn when:

- Required by the pesticide label
- Mixing and loading except for *Caution* pesticides when using a closed system
- Performing all hand application activities (except vertebrate pest control using long-handled tools)
- Adjusting, cleaning or repairing contaminated equipment

Gloves must be chemical-resistant. Often labeling will specify the type of glove that is resistant to the pesticide being used. If the labeling does not require a specific type of glove, then gloves made of rubber, neoprene or other chemical-resistant material must be used. Gloves must be replaced or washed every day. It is especially important that gloves be washed on both the inside and the outside, since residue can accumulate inside. Employees must not use gloves made of leather or cotton, or gloves with cloth linings unless expressly permitted by the pesticide label.

Glove liners and flocked or lined gloves are prohibited but disposable separate glove liners are allowed under certain conditions to make wearing chemical-resistant gloves more comfortable.

The use of glove liners is allowed only when the following conditions are met:

- Pesticide product labeling does not prohibit the use of glove liners
- Glove liners must be separable from the chemical-resistant glove
- Liners must not extend outside of the chemical-resistant glove
- Liners must be discarded at the end of each workday
- Liners must be discarded immediately if directly contacted by the pesticide

Contaminated liners must be disposed of in accordance with federal, state or local regulations.

Coveralls

Clean coveralls are provided daily to employees that handle *Danger* or *Warning* pesticides.

Respiratory Protection

When respiratory protection is required by the label, restricted material permit condition, regulation or Caltech, the employee will be included in Caltech's Respiratory Protection Program. Inclusion in Caltech's Respiratory Protection Program ensures that the employee will complete a medical evaluation, respiratory protection training, fit testing and proper selection of an appropriate respirator.

Pesticide Application Equipment

All pesticide application equipment must be maintained and inspected before use. All necessary repairs must be made before use. Pesticide application equipment must also comply with the following:

- Tanks on pesticide equipment must have secure covers to prevent spills
- All hoses that are to carry pesticides with *Danger* or *Warning* on the label must have shutoff devices or a reverse-action pump
- All mix-load and application tanks over 49 gallons must be equipped with a sight gauge or an automatic shut-off device

Change Areas

A change area is where employees end their exposure period and can change clothes and wash themselves. Change areas are available for employees and have clean or single-use towels, soap, sufficient water and a clean, pesticide-free storage location for employees' personal clothing.

Decontamination Facilities

Caltech provides and maintains facilities for routine and emergency decontamination for employees that handle pesticides. Decontamination facilities contain:

- Clean potable water (the water must be of a quality and temperature that will not cause illness or injury)
- Soap
- Single-use towels and
- One pair of clean coveralls

The facility also contains equipment for emergency eye flushing and emergency washing of the entire body within 100 feet of the mix/load site where *Danger and/or Warning* pesticides are used.

Emergency Medical Care

In the event of a pesticide exposure, poisoning or illness employees will be immediately taken to:

Name, address and telephone number of a facility where emergency medical care for pesticide poisoning is available is posted in the N-8 Leaflet.