



Environmental Health & Safety

PESTICIDE MANAGEMENT PROGRAM

1.0 REGULATORY AUTHORITY

California Code of Regulations, Title 3, Division 6, Chapters 1 - 3 (Pesticide Regulatory Program). This regulation provides guidelines for the protection of employees and the environment for facilities which apply pesticides to private and public property. The agency regulating this standard is the California Department of Food and Agriculture (CDFA).

2.0 POLICY

It is the policy of California State University, Fullerton to protect employees and the public from occupational exposure from the use of pesticides. The overall safety of faculty, staff, students and general public is the main focus of the program so as to not subject them to avoidable risks and/or accidental injury or illness. No employee or student will be required to perform any task that would be considered unsafe or unreasonably hazardous.

To accomplish this, each area that uses pesticides will be provided with the proper materials, equipment, and training in accordance with federal, state and local requirements. The campus will also develop standards and procedures for the use of pesticides specific for each independent area user on campus.

The ultimate responsibility for campus health and safety rests with the University President. The Director of Environmental Health and Instructional Safety is responsible for the implementation and regulation of these programs for the campus. The immediate responsibility rests with the supervisory personnel who are responsible for pesticide use in their work area. Furthermore, each employee working with pesticides in their normal occupational setting is responsible for ensuring the safe use of pesticides for themselves and others. This applies not only to Cal State Fullerton employees but to contractors who work on campus as well. The pesticide or hazardous materials label information and material safety data sheets will be the basic requirement for regulating use of these materials for all persons at California State University, Fullerton.

3.0 PURPOSE

The purpose of this program is to establish a uniform set of guidelines for the use of pesticides, herbicides, and fungicides at California State University, Fullerton. It will provide information regarding the required safety training, proper use, and recordkeeping governing the use of these hazardous materials. This program will outline the use of proper personal protective equipment and procedures for safe preparation and application of these

materials. This program also provides emergency response information and proper notification guidelines in the event of an accident or incident involving these materials.

This program will establish regulatory authority and responsibility of persons designated to implement and manage this program. It will assist in safeguarding the overall health and safety of the employees that may come in contact with these materials and provide for protection of the environment.

4.0 SCOPE

The scope of the pesticide management program at California State University, Fullerton focuses on the employees of the following departments involved with pesticide application:

Landscape Service and Grounds Division, Physical Plant
Fullerton Arboretum
Biology Greenhouse
Cobb Residence Halls (student housing)

This program will provide oversight to pesticide management programs implemented by these departments individually. While each of the above departments apply pesticide in variety of methods, all will be included under one license maintained by EH&IS office. All portions of this program must be adhered to by each department.

5.0 DEFINITIONS

Carbamates - classification of pesticide which inhibits cholinesterase as a mechanism of action.

Handle - the mixing, loading, or applying of pesticides or maintaining, servicing, repairing or cleaning of contaminated equipment used in these activities.

Institutional use - use within the confines or on the property of CSUF.

Organophosphates - classification of pesticide which inhibits cholinesterase as a mechanism of action.

QAC - (Qualified Applicator Certificate Holder) - Any person who has successfully passed the California State Pesticide Laws and Regulations exam, and qualified in one or more pest control categories and may therefore apply restricted materials, supervise pesticide applications, but who is not entitled to supervise the operations of a control business.

QAL - (Qualified Applicator License Holder) - Any person who has successfully passed the California State Pesticide Laws and Regulations exam, and qualified in one or more pest control categories and may therefore apply restricted materials and supervise the pesticide applications/operations made by a licensed pest control business

Pesticide - any substance or mixture of substances that is defined in the Food and Agricultural Code.

Pesticide Release - a sudden release or spill which may pose a threat to human health and/or the surrounding environment.

Protective clothing - clothing which minimizes human body contact with pesticides and is separate from or in addition to normal wearing apparel. Protective clothing may include work clothing, chemical resistant boots, gloves, hat, and chemical resistant apron.

Regularly handle - the employee is handling pesticides during any part of the day more than six calendar days in any 30 consecutive day qualifying period beginning on the first day of handling.

Restricted Materials Permit - CSUF's pesticide application license granted by the Orange County Agricultural Commissioner's Office. This license prescribes the type of materials allowed for application and designates applicators.

Toxicity Category I - pesticide products which are required to display "Danger" on the label.

Toxicity Category II - pesticide products which are required to display "Warning" on the label.

Toxicity Category III - pesticide products which are required to display "Caution" on the label.

6.0 RESPONSIBILITIES

6.1 The Office of Environmental Health and Instructional Safety (EH&IS)

- A. Develop and maintain the Pesticide Management Program. Provide copies of the program to affected departments.
- B. Provide assistance to individual departments concerning implementation of the program.
- C. Ensure each department maintains records for training and pesticide use.
- D. Provide consultation regarding pesticide spills and clearance for re-occupation of affected area. Provide incident follow up and reporting information to the appropriate agencies.
- E. Provide personal protective equipment to pesticide applicators.
- F. Maintain pesticide use, training, and medical records. Conduct periodic inspections of use areas. Serve as liason to the CDFA.
- G. Pick up and arrange for waste pesticide disposal.

6.2 Department Supervisors and Managers

- A. Ensure procedures prescribed herein are followed by affected employees.
- B. Provide specialized training to affected employees.
- C. Report pesticide releases to EH&IS
- D. Conduct inspections of pesticide storage areas and associated equipment to ensure compliance with policy.
- E. Maintain and forward pesticide use records to EH&IS monthly.

7.0 GENERAL SAFETY PROCEDURES

General safety precautions shall be employed to ensure the safety of employees, the public, and the environment from unnecessary exposure to pesticides. Special attention should be given to ensure application equipment is calibrated and in proper working condition and that proper personal protective equipment (PPE) is used. Safe work procedures are to be developed by each area that use pesticides.

As a general rule, some pesticide labels require the licensed and/or certified applicator to be present during application. This means the QAL/QAC must be within line of sight of the applicator.

7.1 POSTING OF EMERGENCY PROCEDURES

Emergency procedures are required to be posted in a common area such as a change area or break room. These procedures will include the following information:

- A. Name of responsible persons, address and telephone number of pesticide use facility.
- B. Name of physician or emergency medical facility, address and telephone number.
- C. General safety information regarding proper PPE, changing and washing facilities, eating and drinking around pesticides, laundering of clothes, and storage and disposal of pesticides.
- D. Information regarding workers rights, first aid procedures, workers compensation information, and reentry interval should be readily available.
- E. Contact numbers for the Agricultural Commissioner's office and Cal/EPA.

7.2 WASHING FACILITIES AND CHANGE AREA

Personal hygiene is essential in minimizing the potential for employee exposure to pesticides. The employer shall provide clean water, soap, and drying towels for routine washing. Employees are required to wash their hands and face before eating. Employees who regularly handle Category I or II pesticides shall be provided an area for decontamination and changing of clothes.

7.3 SAFE WORK PRACTICES FOR PESTICIDE APPLICATION

A. Pesticide Application Equipment

The equipment used for application of pesticides operations shall be in safe working condition and calibrated appropriately. Maintenance records should be kept for each piece of equipment.

The use of heavy equipment such as tractors, trucks or hand spray applicators play an important role in the application of pesticide. An evaluation is required of the spray area and surrounding environment as it relates to the public and the environment. Following proper safety procedures should always be the rule when working with equipment.

Working alone is discouraged. If it isn't possible to work with a team, check in with your supervisor periodically via radio or telephone.

B. Holding Tanks

Application holding tank less than 50 gallons should have proper tank covers and sight gauges. Pesticide holding tanks of 50 gallons or more should have proper tank covers, gauges and shut off devices in place prior to use. All containers shall have the following information:

1. Name of hazardous materials (Product).
2. Hazard indicator label.
3. Date material was placed in container.
4. Name and telephone number of responsible person.

C. Fumigation

Campus fumigation operations are provided by a contractor. However, special procedures must be implemented by the contractor before fumigation begins:

1. Proper notification of spraying or fumigation of an area must be given at least 24 hours in writing to the affected areas including information on the material that will be sprayed.
2. Proper warning signs should be posted prior to and after pesticide application and must include the following information:
 - a. Date and time the fumigant/pesticide was applied.
 - b. Name of the pesticide/fumigant.

7.4 USE OF PESTICIDES IN AN ENCLOSED SPACE

The definition of an enclosed space includes but is not limited to, chambers, vaults, greenhouse, vehicles, tents, tarpaulin-covered structures, and all interior building spaces. The following precautions shall be taken into consideration when working in an enclosed space.

- A. Use of a fumigant with a NFPA flammability rating of 2 or higher will be used with the electrical power turned off.
- B. No employee who uses a pesticide in an enclosed space will apply them without the proper respirator.
- C. Notify EH&IS 24 hours before application / fumigation of an enclosed structure.
- D. Employees occupying the area shall be notified of the pending application, material type, location, and duration using the form included as Attachment A.
- E. At the completion of fumigation/spraying and the end of the exposure period, the area shall be safely and properly ventilated before reoccupation.

7.5 TRAINING

Supervisors/managers shall ensure that every employee who works with or handles pesticide will undergo training annually that, at a minimum, covers the following information. Individual training by the supervisor, manager, or their designee shall be completed and documented before the is allowed to handle pesticides and at least thereafter. Initial training may be waived if the employee is a QAL/QAC holder and appropriate documentation is maintained.

- A. Hazards associated with the acute and chronic exposure to pesticide.

- B. The label information and material safety data sheet information.
- C. Labeling requirements.
- D. Proper personal protective equipment (PPE).
- E. Safety procedures.
- F. Application laws and regulations.
- G. Decontamination and emergency spill procedures.
- H. Symptoms of pesticide poisoning & emergency medical treatment.
- I. Recordkeeping.

7.6 ACCIDENTAL DISCHARGE TO WATER

Contamination of sanitary sewers, flood control channels, or any open water must be avoided. In the event of an accidental spraying or spill, please take the following steps.

- A. Stop all application processes and assess the situation.
- B. Prevent any further contamination to the water source.
- B. Mark the area where the spill or spraying took place.
- D. Call Environmental Health & Instructional Safety at extension x 7233 to immediately report the spill and to receive advice regarding clean-up.

8.0 PESTICIDE STORAGE, DISPOSAL, AND TRANSPORTATION

8.1 STORAGE

Pesticide storage facilities shall meet the criteria required by federal law for primary and secondary containment for pesticide materials. These facilities shall prevent release of pesticide material into the surrounding environment and to workers in the area. All storage facilities shall be secured and locked when not in use.

8.2 STORAGE FACILITY POSTING

All doors and entrances will be posted with warning signs that will state at least the following:

DANGER

POISON-STORAGE AREA
Unauthorized Persons Keep Out
Keep Door Locked When Not In Use

These signs will be posted in English and Spanish. They will include the name, address, and telephone number for the nearest emergency medical facility.

8.3 STORAGE CONTAINERS

Pesticide containers shall be the original or a specialized container with the proper label. No container shall be placed on the floor for storage. All bag containers are required to be enclosed in a secondary container to prevent possible spillage or leakage. All service containers will be triple rinsed after use. Old original metal or other containers that are in poor condition shall be contained in plastic trays or as appropriate for that material. Another option is to properly dispose of these containers following the procedures outlined in section 8.4.

8.4 PESTICIDE WASTE DISPOSAL

Waste pesticide and associated containers will be handled in compliance with hazardous waste regulations. Pesticide rinsate from equipment clean-up and expired waste concentrates make up the bulk of the pesticide waste stream. The minimization of these wastes are of the highest priority and steps to accomplish this should be routine. The use of rinsates (Pesticide rinse) will reduce pesticide waste (see Section 8.6).

8.5 WASTE MINIMIZATION PROCEDURES

The collection and use of pesticide rinsate and good planning reduces the amount of pesticide needed for the job. These practices also reduce the amount of pesticide waste.

The sharing of unwanted pesticides with other departments also reduces waste. Consult EH&IS at extension x 2124 before sharing pesticides. If surplus material does exist and can be used at a later date, it must be stored in a properly labeled container. The container label information will include the following:

- A. Product Name
- B. Hazard type symbol
- C. Name and telephone number of responsible person

Limit purchases of pesticide to what is needed to do the job. This will avoid unnecessary storage and disposal problems.

8.6 PESTICIDE RINSATE

Rinsate is created from the following triple rinsing procedure:

- A. Containers of 5 gallons or less, fill container with water approximately 1/4 the container volume. Containers of more than 5 gallons, fill container with water 1/5 the container volume.
- B. With the minimum amount of rinse medium in the container close cap securely and agitate container.
- C. Completely drain solution into the mix tank. Allow 30 seconds for solution to drain.
- D. Repeat steps twice for a total of three rinses.
- E. After triple rinses have been completed contain and store rinsate for disposal or reuse. Empty containers should be disposed of properly. (see Section 8.7)

8.7 DISPOSAL PROCEDURES

The proper procedure for disposal of waste is as follows:

- A. Fill out a Hazardous Waste Disposal Request for pesticide waste. (SEE Attachment B: EH&IS Hazardous Waste Disposal Request).
- B. Call Environmental Health & Instructional Safety to schedule a waste pickup. Before EH&IS will pick up a container of waste the container must have a label attached with the following information (SEE Attachment C: CSUF Hazardous Waste Disposal Label):
 - 1. Name of responsible persons and department.
 - 2. Waste Classification obtained from MSDS.
 - 3. Accumulation Start Date.
 - 4. Name of Material.
 - 5. Quantity and /or percent volume.

The proper procedure for the disposal of pesticide waste containers is the following:

- 1. Triple rinse the container.
- 2. Puncture plastic or metal containers; glass containers should have their tops removed or should be crushed.

3. All container labels shall be defaced and dated.
4. Containers can now be disposed of as regular trash.

8.8 TRANSPORTATION

Transportation of pesticides on public highways is prohibited unless permission is obtained through the Department of transportation. However, pesticides can be transported throughout the campus following these precautions:

- A. Never carry pesticides in the passenger compartment of any vehicle.
- B. All pesticides containers should be secured in the cargo area of the vehicle.
- C. Never allow children, adults, or animals to ride in the area where pesticides are being carried.
- D. Do not leave pesticides unattended in a vehicle unless they are inside a locked compartment.
- E. A current inventory of all pesticides, along with MSDS's for each pesticide to be transported, should be available.

9.0 LABELING & WARNING SIGNS

The pesticide product label provides the user with the information required for safe and proper use of the material. The label should contain directions that are easily understandable and clearly explain the application process, along with information regarding the adverse effects associated with the product. The label should explain toxicity, proper personal protective procedures, proper storage and disposal methods associated with the product.

9.1. LABELING & MATERIAL SAFETY DATA SHEETS (MSDSs)

The basic labeling & MSDS information requirements for pesticides shall include:

- A. Product identification.
- B. Hazardous chemical warning.
- C. Information regarding the chemical test mixture.
- D. Identified carcinogens in excess of 1%.

- E. The materials physical and chemical characteristics (i.e., such as vapor pressure, specific gravity, flammability, or explosion potential).
- F. Health hazards associated with the material.
- G. Primary route of entry into the body.
- H. The OSHA permissible exposure limit. (PEL).
- I. Application methods and/or any safe handling procedures. Descriptions of engineering controls and proper personal protective equipment required for use of the material.
- J. Practical measures for working with contaminated equipment and spill cleanup procedures.
- K. Emergency and first aid procedures.
- L. Name, address and emergency telephone number of the manufacturer or supplier along with the MSDS preparation date.

9.2 TOXICITY CATEGORY WARNING SIGNS

Pesticide labels will identify the toxicity as a category defined by the following:

- A. TOXICITY CATEGORY I - These will have the icon of the skull and crossbones and are labeled as "DANGER", "POISON" or both.
- B. TOXICITY CATEGORY II - These will have the word "WARNING".
- C. TOXICITY CATEGORY III - These will have the word "CAUTION".

All toxicity categories will contain information regarding the systemic effects for inhalation, ingestion, and dermal contact. Containers will have the statement "KEEP OUT OF REACH OF CHILDREN".

10.0 PERSONNEL PROTECTIVE EQUIPMENT (PPE)

Environmental Health and Safety is responsible for providing personal protective equipment through the Material Control office. The department shall ensure that this equipment is properly maintained and cleaned as necessary to ensure proper function of this equipment. Storage of this equipment shall be a designated area or locker facility in the department. Proper PPE includes such items as clothing, eye protection, hand & foot protection, respiratory protection, and head protection.

10.1 PROTECTIVE CLOTHING

The protective clothing required to apply pesticide shall remain the property of the employer. Protective clothing includes but is not limited to one piece tyvek suits (Saranex 23-P), water proof coats or aprons and pants, full body chemical resistant rain suit, chemical resistant aprons etc. When the pesticide materials label or MSDS requires use of these protective clothing the University shall provide these to the employee at no cost. Applicators will use full body chemical resistant or waterproof suits when recommended by the pesticide product label or MSDS. The exception would be in the case that ambient air temperature exceeds 80 F during normal daylight working hours, or 85 F at night.

Employees who work with regular or closed application systems, mix sealed water-soluble packets, or who mix pesticide in service tanks, hoppers, or lines are required to wear chemical resistant protective wear.

10.2 PROTECTIVE EYE WEAR

Eye protection is required for the application or use of all hazardous chemicals. The type of eye protection will be determined by the label instructions. In case there are no specific eye protection guidelines, eye protection shall consist of one of the following:

- A. Safety glasses with front brow and temple protection.
- B. Safety goggles.
- C. Faceshield

10.3 PROTECTIVE FOOTWEAR

Protective footwear (shoes, boots, or rubber shoe covers) is determined by the type of application method and manufacturer recommendations. These shoes or boots should have non-skid soles and if possible steel capped toes.

All footwear should be kept in a clean condition by washing with soap & water at the end of the day. This should be sufficient to remove most toxic materials and minimize possible absorption through the shoe or boot.

10.4 HAND PROTECTION

Gloves shall be worn except when specified . Pesticide product information shall determine the type of hand protection required for use of the product. In the case where specific hand protection is not specified one of the following shall be worn:

- A. Rubber gloves
- B. Neoprene gloves

- C. Any other chemical resistant glove material.

Disposable gloves are to be disposed of in hazardous waste containers after use. All other gloves are to be cleaned after use with soap and water. Previously used gloves are to be inspected prior to use for holes or tears that may compromise their integrity.

10.5 HEAD PROTECTION

Protective hoods shall be worn for all fogging or misting procedures unless otherwise recommend by the pesticide application label instructions or MSDS. These head coverings should be made of a chemical resistant material.

Cloth hats are discouraged unless otherwise recommended by the pesticide manufacturer. Cloth like materials tend to absorb potentially hazardous chemical compounds.

10.6 RESPIRATORY PROTECTION

Respiratory protection is required by the California Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety (NIOSH) for pesticide applicators. The selection of the proper type of respirator will be based on product label or MSDS information.

Respiratory equipment is made available at no cost to the employee. EH&IS shall ensure that all persons who use respirators are:

- A. Properly trained in respirator use annually.
- B. Respirators are cleaned and properly maintained by written procedure.
- C. Respirators are used properly by written procedure.
- D. Persons are properly fitted to use a respirator.
- E. Pesticide applicators are required to undergo a pulmonary function test (PFT) to determine fitness for respirator usage prior to appointment and annually thereafter.

11.0 EMERGENCY RESPONSE PROCEDURES

11.1 EXPOSURE ROUTES AND EMERGENCY MEDICAL CARE

The four major routes of entry for pesticides are:

- A. Dermal - skin, eye, ears, nose, mouth contact.

- B. Ingestion - eating, chewing and/or swallowing.
- C. Inhalation - breathing of dust or vapors.
- D. Injection - piercing or puncturing of the skin.

Personal hygiene is very important in reducing the risk factors for exposure. Based on the absorbency rates of chemicals, toxicity of certain chemicals may vary

Persons who use organophosphate or carbamate pesticides on a regular basis, should have periodic medical check-ups. Pesticide regulations require a baseline red cell and plasma cholinesterase determination for applicators which use these products six out of every 30 day period.

The following steps are to be followed in the event of overexposure:

- A. Remove the person from the area.
- B. Dial 9-911 and provide the following information:
 - 1. Type of incident
 - 2. Number of persons involved
 - 3. Name of pesticide and amount used
- C. Decontaminate the victim using fresh water. Avoid contaminating yourself.
- D. Transport victim to an emergency care facility.

11.2 PESTICIDE SPILL RESPONSE

In the event of a release, EH&IS will implement the CSUF Business Plan. The Business Plan outlines spill response procedures, dictates necessary corrective measures, and provides a communications base for coordinating response efforts.

After witnessing or being notified of an incident, steps for response include but are not limited to:

- A. Gather as much information regarding environmental conditions, circumstances of surrounding the incident, material spilled, and possible personnel exposures. Review the material safety data sheet for spill containment measures.
- B. Notify EH&IS. For large concentrated spills or medical injury call 9-911.
- C. Stop exposure of all persons in the area, barricade the area to the public and contain the spill.

- D. EH&IS shall determine whether area is safe to allow work to continue or if the area should remain closed off until further notice.

11.3 INCIDENT FOLLOW-UP

The Environmental Health & Instructional Safety Office will be responsible for the appropriate follow-up to hazardous material incidents. EH&IS shall:

- A. Stay in contact with the department and regulatory agencies involved. Report to regulatory agencies within the designated time frames.
- B. Arrange with Human Resources for follow-up medical monitoring of affected individuals.
- C. Develop an emergency response plan, detailed incident report, and a proactive follow-up plan available for review by governmental regulatory agencies.
- D. Investigate and review the incident with the affected employees. Make recommendations as to how to avoid these incidents from occurring in the future.

12.0 RESEARCH AND EXPERIMENTAL PESTICIDE USE

Pesticides used for research which include restricted materials must be approved by the EH&IS office. Application of these pesticides must adhere to all aspects of this program, with the exception use reporting, provided herein.

13.0 RECORD KEEPING

The Environmental Health & Instructional Safety Office and the use areas will maintain the proper records as required by law. The EH&IS office shall act as the liaison of these records for the county agriculture department. Pesticide users with the exception of the Biology Greenhouse will provide EH&IS with copies of these records for review. Campus pesticide applicators will use the State of California Department of Pesticide Regulation's Monthly Summary Pesticide Use Report included as Attachment D as a means of reporting restricted material usage to EH&IS. In turn, EH&IS will forward these records to the Orange County Agricultural Office.

13.1 PESTICIDE USER RECORDS

The individual area users of pesticide will maintain usage records in their areas independently. Records shall contain the following information:

- A. Name of property operator

- B. Location of property area treated
- C. Applicator name & date of use
- D. Pesticide name & EPA number
- E. Pesticide amount used and concentration.
- F. Operator identification number and/or restricted materials user permit.

13.2 ENVIRONMENTAL HEALTH & INSTRUCTIONAL SAFETY RECORDS

While copies of user records should be sent to EH&IS, the following shall be maintain by EH&IS for the campus user:

- A. A written training program for employees who handle pesticides.
- B. A written respirator protection program for employees who handle pesticides.
- C. Maintain individual training records for individuals who handle pesticides.
- D. Maintain material safety data sheets (MSDS's) for all hazardous materials in use at CSUF.
- E. Provide employees with a written hazard communication program and other public safety information.
- F. Manage the medical supervision program and maintain employees pesticide user medical records.
- G. Manage and maintain all pesticide area user inspection records.

Records for pesticide use are required to be kept for a minimum of 3 years. Medical records are to be kept for 30 years.

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