

“Engineered rights-of-way” means areas within a ground water protection area that are constructed in a way that results in increased runoff and collection of storm water, such as railroad ballasts and berms, public roadsides, and highway median strips or similar areas, but not canal or ditch banks or utility lines.

“Evapotranspiration” is the combination of water transpired from vegetation and evaporated from the soil and plant surfaces. Evapotranspiration data can be obtained from the California Irrigation Management Information System (CIMIS) or other local sources.

“Examination” means written examination.

“Feasible” means capable of being accomplished in a successful manner, within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

“Feasible alternatives” means other chemical or non-chemical procedures which can reasonably accomplish the same pest control function with comparable effectiveness and reliability, taking into account economic, environmental, social, and technological factors and timeliness of control.

“Feasible mitigation measure” means a condition attached to the approval of an activity which, if implemented, would substantially reduce any adverse impact, taking into account economic, environmental, social, and technological factors and timeliness of control.

“Field” means any area (including a greenhouse) upon which one or more agricultural plant commodities (including forest and nursery products) are grown for commercial or research production. Field does not include range or pasture harvested by grazing animals.

“Field capacity” is the amount of water remaining in soil when the downward water flow due to gravity becomes negligible.

“Fieldworker” means any person who, for any kind of compensation, performs cultural activities in a field. Fieldworker does not include persons performing tasks as a crop advisor, including field checking or scouting, making observations of the well being of the plants, or taking samples, nor does it include local, state, or federal officials performing inspection, sampling, or other similar official duties.

“Filter or air purifying element” means a component used in respirators to remove solid or liquid aerosols from the inspired air.

“Filtering facepiece (dust mask)” means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

“Fumiscope”® is a monitoring instrument that measures the concentration of methyl bromide inside a structure in ounces per 1,000 cubic feet. (The analytical detection limit of a Fumiscope® is 250 parts per million [ppm]).

“Greenhouse” means a structure or space, of sufficient size to permit entry, that is enclosed with a nonporous covering and used in the commercial or research production of an agricultural plant commodity. The term includes polyhouses, mushroom houses, rhubarb houses and similar structures.

“Ground-based application equipment” means equipment such as:

- (a) Hand sprayers;
- (b) Backpack sprayers;
- (c) Air-blast sprayers;
- (d) Field soil injection equipment;
- (e) Dusters;
- (f) Drills;
- (g) Granular applicators; or
- (h) Ground-rig sprayers.

“Ground water protection area” means an area of land that has been determined by the Director to be vulnerable to the movement of pesticides to ground water, as identified in the Department of Pesticide Regulation document EH03-05 (Est. 08/03), hereby incorporated by reference, entitled "Ground Water Protection Areas," in Appendix I. The determination of a ground water protection area is based on factors, such as soil type, climate, and depth to the ground water, that are characteristic of areas where legally applied pesticides or their breakdown products have been detected and verified in ground water.

“Hand labor” means any cultural activity, performed by hand or with hand tools, that causes substantial contact with surfaces (such as plants or soil) that may have pesticide residues. These activities include: hand harvesting, detasseling, thinning, hand weeding, topping, planting, sucker removal, pruning, disbudding, roguing, and packing produce into containers in the field. Hand labor does not include: operating, moving, or repairing irrigation equipment or performing the duties of a crop advisor, field checker, or scout, making observations of the well being of the plants, or taking samples.

“Handle” means mixing, loading, transferring, applying (including chemigation), or assisting with the application (including flagging) of pesticides, maintaining, servicing, repairing, cleaning, or handling equipment used in these activities that may contain residues, working with opened (including emptied but not rinsed) containers of pesticides, adjusting, repairing, or removing treatment site coverings, incorporating (mechanical or watered-in) pesticides into the soil, entering a treated area during any application or before the inhalation exposure level listed on pesticide product labeling has been reached or greenhouse ventilation criteria have been met, or performing the duties of a crop advisor, including field checking or scouting, making observations of the well-being of the plants, or taking samples during an application or any restricted entry interval or entry restricted period listed on pesticide product labeling or other handling activities specified by the label. Handle does not include inspection, sampling, or other similar official duties performed by local, state, or federal officials.

“Runoff ground water protection areas” are sections of land designated as "runoff" in the Department of Pesticide Regulation document EH03-05 (Est. 08/03) hereby incorporated by reference, entitled "Ground Water Protection Areas," where pesticide residues are carried in runoff water to more direct routes to ground water such as dry or drainage wells, poorly sealed production wells, or soil cracks, or to areas where leaching can occur.

“Sensitive aquatic site” means any irrigation or drainage ditch, canal, or other body of water in which the presence of dormant insecticides could adversely impact any of the beneficial uses of the waters of the state specified in Water Code section 13050(f).

“Site specific” means a pesticide permit that identifies the specific area to be treated, the size of that area, and the commodity(ies) or site(s) on that area to be treated.

“Solicits services or sales”, as used in section 11410 of the Food and Agricultural Code, means sells, or offers for sale, any pesticide, method, or device outside of a fixed place of business.

“Spot treatment” means an application to limited areas that will not exceed two square feet on which pests are likely to occur or have been located during the process of monitoring or inspection.

“Structural use” means a use requiring a license under Chapter 14 (commencing with section 8500), Division 3 of the Business and Professions Code.

“Study director” means the individual responsible for the overall conduct of a research project.

“Substantial drift” means the quantity of pesticide outside of the area treated is greater than that which would have resulted had the applicator used due care. This definition is applicable to section 12972 of the Food and Agricultural Code and section 6614 of Title 3, California Code of Regulations.

“Time specific” means a pesticide permit that specifies the date the intended application is to commence or permit with a notice of intent requirement. The pesticide use may commence within four days following such date if delays are caused by uncontrollable conditions such as adverse weather or unavailability of equipment. The commissioner shall require a notice of intent from either the grower, the grower's authorized representative, or the pest control business when necessary to make the permit time and site specific.

“Treated field” means a field that has been treated with a pesticide or had a restricted entry interval or entry restricted period in effect within the last 30 days. A treated field includes associated roads, paths, ditches, borders, and headlands, if the pesticide was also directed to those areas. A treated field does not include areas inadvertently contaminated by drift or over spray.

“Use” means any pesticide related activity including:

- (a)** Pre-application activities, including:
 - (1) Arranging for the application;
 - (2) Mixing or loading; and
 - (3) Making necessary preparations for the application, including responsibilities related to notification, handler training, decontamination facilities, use and care of personal protective equipment, medical monitoring and assistance, and heat stress management;
- (b)** Application of the pesticide;
- (c)** Post-application activities, including:
 - (1) Control of the treated area to reduce exposure, including responsibilities for restricted entry intervals, warnings, decontamination facilities, medical assistance, and fieldworker training;
 - (2) Management of the treated area, crop, or crop by-products, including responsibilities for preharvest intervals and plant back restrictions;
 - (3) Transportation, storage, and disposal of excess pesticides, spray mix, equipment wash water, and pesticide containers; and
 - (4) Cleaning of application equipment and other pesticide containing materials.
- (d)** Use does not include:
 - (1) Activities where involvement is only incidental to other tasks such as emergency responders providing incident management, commercial transportation of pesticide related waste for disposal or recycling, or a waste disposal or recycling facility accepting or handling these wastes; or
 - (2) Manufacturing, formulating, or packaging (including bulk repackaging) by a registered pesticide producing establishment.

6170.5. Application Form.

The form referred to in section 6170(a) shall require registrants to provide the following information when applicable.

(a) Firm name, (same as on file with the United States Environmental Protection Agency [U.S. EPA]);

(b) Firm mailing address and street address, if different from mailing address;

(c) Name and telephone number of official authorized to answer questions concerning the application;

(d) Brand name of pesticide product (exactly as shown on label);

(e) U.S. EPA registration number of pesticide product;

(f) Type of U.S. EPA registration obtained;

(g) Type of California registration action being requested;

(h) Whether pesticide product contains biochemicals and/or microbials;

(i) Type(s) and size(s) pesticide product is to be sold in;

(j) Whether pesticide product requires child-resistant packaging;

(k) Signal word on label;

(l) Specific gravity and pounds/gallon of liquid formulations;

(m) Bulk density of solid formulations;

(n) pH of water soluble formulations;

(o) Flash point/flame extension of products containing more than 70 percent petroleum distillates;

(p) Whether product is intended for commercial agricultural use and/or by householders;

(q) Type of pesticide product;

(r) Method(s) of application;

(s) Type of formulation;

(t) Common chemical name, trade name and CAS number for each active ingredient in the formulation;

(u) Product name(s) and U.S. EPA registration number(s) of the source product(s) of each active ingredient in the formulation;

(v) Percent by weight of source product(s) and of active ingredient(s) in formulated product;

(w) Common chemical name, trade name and the CAS number of each inert ingredient in the formulation (if reporting by trade name only, include Safety Data Sheet);

(x) Product name(s) of the source product(s) of each inert ingredient in the formulation;

(y) Purpose of each inert ingredient in formulated product;

(z) Percent by weight of source product(s) and of the inert ingredient(s) in the formulated product.

NOTE: Authority cited: Section 12781 and 12845, Food and Agricultural Code.

Reference: Sections 12811, 12815 and 12821, Food and Agricultural Code.

6171. Document Requests.

Each applicant shall, upon request of the director, submit to the director a copy of any part or all documents the applicant submitted to the U.S. EPA in support of the U.S. EPA action concerning the pesticide product. Each document request pursuant to this section shall include the director's reason for the request.

NOTE: Authority cited: Sections 11456, 11502, 12005, 12111, 12531, 12561, 12781, 12824, 12976, 12981, 14005 and 14006.7, Food and Agricultural Code.
Reference: Sections 11401-12121, 12501-12671, 12751-13102 and 14001-14104, Food and Agricultural Code.

6172. General Toxicity Data.

(a) The following data shall be submitted with every application for registration.

- (1) Acute oral and dermal LD₅₀ data on the product.
- (2) Acute LC₅₀ data on products which produce a respirable aerosol or gas.
- (3) Primary eye and skin irritation data on the product.

(b) The following data in addition to the data required by (a), (1)-(3), shall be submitted with each application to register a product containing an active ingredient not previously registered when required by the U.S. EPA to support the full unconditional registration pursuant to Section 3 of the Federal Insecticide, Fungicide and Rodenticide Act. Pesticides which are determined to be biorational pesticides as determined by the director, may be exempted from the chronic toxicity data requirements.

- (1) Results of a two-year feeding study for oncogenicity on active ingredients in two animal species.
- (2) Results of a teratogenicity study and a two-generation combined male-female reproductive study on active ingredients.
- (3) Results of three mutagenicity studies on active ingredients that detect gene mutations, chromosomal aberrations, and DNA damage/repair.

NOTE: Authority cited: Sections 12781 and 12824, Food and Agricultural Code.
Reference: Sections 11501 and 12824-12825, Food and Agricultural Code.

(n) If no appeal is received by the director with 30 days of the commissioner's review decision, the aerial application may commence without further delay.

If the director's decision upholds the permit issuance and the permit cannot be exercised because of the delay involved in the stay and/or review, the permit shall be extended by order of the director for a sufficient length of time to allow for spraying at the earliest possible date, but in no case longer than 12 months.

NOTE: Authority cited: Sections 11456, 14001, 14005 and 14006, Food and Agricultural Code.
Reference: Sections 14004, 14006.5 and 14009, Food and Agricultural Code.

6444. Generalized Effects.

If at any time pesticide residues, symptoms, or health hazards appear generally throughout any area, the director or commissioner may cause a field inspection to be made. If it appears that substantial loss, damage, or injury is likely to result from continued application of a specific pesticide within such area, the director or commissioner may cause all permits for applications of that pesticide within such area canceled and specify that no additional permits shall be issued therein.

NOTE: Authority cited: Sections 11456, 14005 and 14102, Food and Agricultural Code.
Reference: Sections 11501 and 14006, Food and Agricultural Code.

Article 4. Field Fumigation Use Requirements
Sections 6445-6452.4

6445. Fumigation-Handling Activities.

For purposes of sections 6447-6447.3, and 6784(b), fumigation-handling activities are limited to employees involved in assisting with covering the tarpaulin at the end of the rows (shoveling); assisting in the overall operation, ensuring proper tarpaulin placement and condition, and changing cylinders (copiloting); operating tractor equipment (driving); supervising the fumigation operation; operating chemigation equipment and assisting in chemigation application and leak repair (chemigating); tarpaulin cutting; tarpaulin or chemigation equipment removal prior to the expiration of the entry restricted period; and other handling activities specified by the label.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.
Reference: Sections 11501, 12981 and 14102, Food and Agricultural Code.

6445.5. Field Fumigation Licensing Requirements.

When a field fumigation application is made by a licensed pest control business, the business must have a person holding a qualified applicator license or certificate with the field fumigation pest control subcategory supervising the work.

NOTE: Authority Cited: Sections 11456, 11502 and 14005, Food and Agricultural Code.
Reference: Sections 11501, 14001 and 14151, Food and Agricultural Code.

6446. Methyl Iodide – General Requirements. (Repealed) 2014

6446.1. Methyl Iodide Field Fumigation Methods. (Repealed) 2014

6447. Methyl Bromide-Field Fumigation – General Requirements.

The provisions of this section and sections 6447.1, 6447.2, 6447.3, and 6784(b) pertain to field soil fumigation using methyl bromide. For purposes of these sections, field soil fumigation does not apply to golf courses, replant of individual vine or tree-sites (tree holes) less than one contiguous acre, raised-tarpaulin nursery fumigations of less than one acre, potting soil, and greenhouses and other similar structures.

(a) In addition to the requirements of section 6428, the operator of the property to be treated shall submit a proposed worksite plan to the commissioner for evaluation at least 7 days prior to submitting a notice of intent. The proposed worksite plan must include, but is not limited to, method of application to be used, acreage and identification of each application block to be treated, broadcast equivalent application rate to be used, description of the notification procedure to property operators pursuant to section 6447.1(b), description of any activities within the buffer zone(s) as specified in section 6447.2(c) and (d), description of any workday/work hour limitations as specified in section 6784(b)(3) and respiratory protection as specified on the label, and if applicable, description of the tarpaulin repair response plan. The commissioner shall retain the proposed worksite plan for one year after the expiration of the permit.

(b) The commissioner, pursuant to section 6432, shall evaluate local conditions and the proposed worksite plan.

(c) The commissioner shall include at least the following when conditioning a permit: the buffer zone requirements, work hour restrictions, notification requirements, any other restrictions to address local conditions, and if applicable, description of the tarpaulin repair response plan. The commissioner shall complete the evaluation and complete conditioning the permit prior to the submission of the notice of intent.

(d) An application block must not exceed 40 acres unless approved by the Director.

(e) Except for experimental research purposes pursuant to a valid research authorization issued according to section 6260 or a reduced volatile organic compound emission fumigation method approved pursuant to section 6452, tarpaulins must have a permeability factor of no more than 8 milliliters methyl bromide per hour, per square meter, per 1,000 parts per million of methyl bromide under the tarpaulin at 30 degrees Celsius, and be approved by the Department. This includes tarpaulins that have been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone distances specified on the label. A list of approved tarpaulins is available from the Department.

(f) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins must remain in place for the time specified in section 6447.3.

(g) County agricultural commissioners shall ensure that agricultural use of methyl bromide does not exceed 171,625 pounds in a township in a calendar month. County agricultural commissioners shall deny any permit or notice of intent that would cause the 171,625 pound limit to be exceeded.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

6447.1. Methyl Bromide Field Fumigation Notification Requirements.

(a) Notification to the Commissioner.

(1) Notwithstanding section 6434, the operator of the property to be treated shall assure that the commissioner is notified (notice of intent) at least 48 hours prior to commencing fumigation. The notice of intent shall indicate the hour the fumigation is intended to commence and the information specified in section 6434(b).

(2) The fumigation shall not commence sooner than the intended starting time or later than 12 hours after the intended starting time specified on the notice of intent.

(3) If fumigation of an application block does not commence within the time specified in (a)(2), a new notice of intent must be submitted, but no new 48-hour waiting period is needed unless required by the commissioner.

(4) For multiple application blocks to be fumigated sequentially, the commissioner may allow one notice of intent that includes an application schedule for all the application blocks in lieu of a separate notice of intent for each application block to be fumigated. The schedule must specify the date and time each application block is intended to be fumigated.

6447.1. Methyl Bromide Field Fumigation Notification Requirements. (continued)

(b) Notification to Property Operators.

(1) The operator of the property to be treated shall assure that operators of the following properties within 300 feet of the perimeter of the outer buffer zone receive notification that a permit to use methyl bromide near their property has been issued by the commissioner: properties that contain schools, residences, hospitals, convalescent homes, onsite employee housing, or other similar sites identified by the commissioner. Notification shall be in writing in both English and Spanish, or by other means approved by the commissioner. The operator of the property to be treated shall assure that notification is delivered at least seven days prior to the submission of the notice of intent. The notification shall include the following information:

- (A) the name of the chemical(s) to be applied;
- (B) name, business address, and business telephone number of the operator of the property to be treated;
- (C) name, business address, and business telephone number of the commissioner;
- (D) the earliest and latest dates that the fumigation will start; and
- (E) how to request subsequent notification of specific date and time of the fumigation

(2) The operator of the property to be treated shall assure that specific notification of the date and time of the start of the fumigation and anticipated expiration of buffer zones is provided to those person notified in (b)(1) who request specific fumigation information. This specific fumigation notification shall be provided at least 48 hours prior to starting the fumigation. If a request for specific notification is received after the submission of the notice of intent and before the fumigation begins, the specific fumigation notification shall be provided prior to starting the fumigation, but the 48-hour requirement shall not apply. If the fumigation of an application block does not commence within the time frame specified in (a)(2), then a new notification must be provided to those persons who requested the information, but the 48-hour requirement shall not apply unless required by the commissioner.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

6447.2. Methyl Bromide Field Fumigation Buffer Zone Requirements.

(a) The commissioner shall set buffer zone sizes and durations based upon local conditions. The commissioner may not allow a buffer zone that is smaller or a duration that is less in permit conditions than those listed in Methyl Bromide Field Fumigation Buffer Zone Determination, Rev. 3/10, hereby incorporated by reference.

(b) Two buffer zones, an inner and outer for each application block, shall be approved by the commissioner after the proposed worksite plan is submitted.

(c) Inner Buffer Zone Restrictions.

(1) The inner buffer zone must be at least 30 feet.
(2) The operator of the property to be treated shall assure that no persons are allowed within the inner buffer zone except to transit on public and private roadways by vehicles or bicycles or to perform fumigation handling-activities.

(3) The inner buffer zone must not extend into adjoining property except as provided below:

(A) The inner buffer zone may extend into adjoining agricultural property if the adjoining property operator gives written permission and allows the operator of the property to be treated to post the inner buffer zone boundary on the adjoining property with signs. If such written permission is given, the operator of the property to be treated shall assure that:

1. The inner buffer zone boundaries on the adjoining property are posted with signs while the buffer zone is in effect; and
2. The signs are posted with wording in accordance with the label; and
3. The signs are posted at intervals not exceeding 200 feet.

(B) With approval from the commissioner, the inner buffer zone may extend across sites only where transit activities may occur, including streets, roads, roads within agricultural property and highways. Written permission and posting requirements in 6447.2(c)(3)(A) shall not apply.

(d) Outer Buffer Zone Restrictions.

(1) The outer buffer zone must be at least 60 feet.
(2) The operator of the property to be treated shall assure that no persons are allowed within the outer buffer zone except to transit on public and private roadways by vehicles or bicycles, perform fumigation handling activities, and commissioner-approved activities as identified in the restricted materials permit conditions. In no instance shall persons be allowed within the outer buffer zone for more than 12 hours in a 24-hour period.

(3) The outer buffer zone may extend into other properties with written permission from the operators of these other properties. In no instances shall the outer buffer zone contain occupied residences or buildings, or occupied onsite employee housing while the outer buffer zone is in effect. The outer buffer zone must not extend into properties that contain schools, convalescent homes, hospitals, or other similar sites identified by the commissioner.

(4) The outer buffer zone may extend across roads, highways, or sites approved by the commissioner.

(e) The operator of the property to be treated shall assure that the operator of the other properties specified in (c)(3)(A) and (d)(3) above notify the following persons that a buffer zone(s) has been established on the property: onsite employees, including those of a licensed pest control business or farm labor contractor. The notice to employees must be given prior to the commencement of the employee's work activity. Notification to farm labor contractor employees may be done by giving written notice to the farm labor contractor, who shall then give the notice to the employee. Employee notification must be in a manner the employee can understand, and include information required in section 6447.1(b)(2).

(f) The operator of the property to be treated shall assure that specific notification of the date and time of the start of the fumigation and anticipated expiration of buffer zones is provided to the other property operator, if the operator of the other property is required to notify his/her employees as specified in (e). This specific fumigation notification must be provided to the other

property operator at least 48 hours prior to starting the fumigation. If the fumigation of an application block does not commence within the time frame specified in 6447.1 (a)(2), then a new notification must be provided to the other property operator specified in (c)(3)(A) and (d)(3), but the 48-hour requirement shall not apply unless required by the commissioner.

(g) No fumigant application with an outer buffer zone greater than 300 feet is permitted within $\frac{1}{4}$ mile of a school property unless the school is scheduled to be unoccupied during the application period and for 36 hours thereafter.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

6447.3. Methyl Bromide Field Fumigation Methods.

(a) The methyl bromide field soil fumigation must be made using only the methods described in this section. However, within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, the following methods are prohibited during the May 1 through October 31 time period: (2), (4), and (6); and if applied as alternating fumigated and unfumigated areas (strip fumigation), methods (3) and (5). In addition to labeling requirements for each of these methods, the following requirements shall apply:

(1) (Reserved)

(2) Nontarpaulin/Deep/Broadcast.

(A) Broadcast equivalent application rate must not exceed 400 pounds of methyl bromide per acre.

(B) Forward-curved chisel must be used with:

1. An application tractor equipped with an air fan dilution system and the injection depth must be at least 20 inches; or

2. Closing shoes and compaction roller and the injection depth must be at least 24 inches.

(C) Injection spacing must be 68 inches or less.

(D) The soil must not be disturbed for at least four days (96 hours) following completion of injection to the application block.

(3) Tarpaulin/Shallow/Broadcast.

(A) Broadcast equivalent application rate must not exceed 400 pounds of methyl bromide per acre.

(B) Application must be made using either an application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant must be injected laterally beneath the soil surface.

(C) Injection depth must be at least 10 and no greater than 15 inches.

(D) Injection spacing must be 12 inches or less.

(E) The tarpaulin must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.

(F) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.

(G) Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.

(4) Tarpaulin/Shallow/Bed.

(A) Broadcast equivalent application rate must not exceed 250 pounds of methyl bromide per acre.

(B) Rearward-curved (swept-back) chisels must be used with either:

1. Closing shoes and compaction roller. The closing shoes must cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or

2. Bed shaper. The chisels must be placed with the injection point under the bed shaper, and the tarpaulin must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or

3. Combination bed former and bed shaper. The chisels must be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment must immediately follow the application tractor.

(C) Injection depth shall be between 6 and 15 inches. The injection depth to preformed beds must not be below the bed furrow.

(D) Injection spacing must be 12 inches or less.

(E) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block

(F) If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The entry restricted period must be at least six days, or 10 days if using tarpaulin described in (E).

(G) If tarpaulins are not to be removed before planting, the application block entry restricted period must either:

1. consist of the five-day period plus an additional 48 hours after holes have been cut for planting if using a tarpaulin not described in subsection (E); or

2. consist of a nine-day period plus an additional 48 hours after holes have been cut for planting, if using a tarpaulin described in subsection (E); or

3. be at least 14 days. If this option is chosen, the methyl bromide air concentration underneath the tarpaulin must test less than 5 parts per million before planting begins.

(5) Tarpaulin/Deep/Broadcast.

(A) Broadcast equivalent application rate must not exceed 400 pounds of methyl bromide per acre.

(B) Forward-curved chisels must be used with either:

1. An air fan dilution system on the application tractor; or

2. Closing shoes and compaction roller.

(C) Injection depth must be at least 20 inches.

(D) Injection spacing must be 66 inches or less.

(E) The tarpaulin must be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.

(F) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.

(G) Tarpaulin removal must begin no sooner than 24 hours after tarpaulin cutting has been completed.

(6) Drip System - Hot Gas.

A hot gas application through a subsurface drip irrigation system to tarpaulin-covered beds may be used if all of the following criteria are met:

(A) Broadcast equivalent application rate must not exceed 225 pounds of methyl bromide per acre.

(B) The fumigant must be injected beneath the soil surface at a minimum depth of one inch.

(C) The portion of the drip system used in the fumigation must be physically disconnected from the main water supply during the fumigation to prevent possible contamination of the water supply.

(D) All fittings and emitters underneath the tarpaulin must be buried in the soil to a minimum depth of 1 inch.

(E) Prior to the start of the fumigation, all drip tubing must be checked for blockage, and the irrigation system connections and fittings checked for blockage and leaks using pressurized air and/or water. The end of each drip tubing must be placed under the tarpaulin prior to introduction of fumigant.

(F) The tarpaulin must be placed and inspected for tears, holes, or improperly secured edges prior to fumigating. Repairs and adjustments must be made before the fumigation begins.

(G) Prior to the start of the fumigation, all fittings above ground and outside of the tarpaulin must be pressure tested with compressed air, water, or nitrogen gas to a maximum pressure of 50 pounds per square inch. A soap solution must be used to check the fittings for leaks if using air or nitrogen. All apparent leaks must be eliminated prior to the fumigation. All drip tubing with emitters connected to the distribution manifold not covered by the tarpaulin must be sealed to prevent fumigant loss through the emitters.

(H) Prior to introducing the fumigant, the drip system must be purged of water by means of pressurized gas such as CO₂ or nitrogen.

(I) The drip system must be purged prior to disconnecting any line containing the fumigant.

(J) After purging, drip tubing must be pinched off and then disconnected from the distribution manifold. All disconnected tubing leading into the treated field must be secured to prevent gas from escaping.

(K) All fittings used for connecting or disconnecting the heat exchanger to the irrigation system manifold must be of a positive shut-off design.

(L) All persons must wear the eye protection specified on the label when working with a manifold system or tubing containing the fumigant under pressure.

(M) The entire fumigation system (heater, valves, and manifold) must be purged of the fumigant at the end of each day's fumigation.

(N) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.

(O) If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The entry restricted period must be at least six days, or 10 days when using tarpaulin described in (N).

(P) If tarpaulins are not to be removed before planting, the application block entry restricted period must either:

1. consist of the five-day period plus an additional 48 hours after holes have been cut for planting, if using a tarpaulin not described in subsection (N); or
2. consist of a nine-day period plus an additional 48 hours after holes have been cut for planting, if using a tarpaulin described in subsection (N); or
3. be at least 14 days. If this option is chosen, the methyl bromide air concentration underneath the tarpaulin must test less than 5 parts per million before planting begins.

(b) Notwithstanding section 6770, the operator of the property shall assure that only persons performing fumigation-handling activities are allowed in an application block before the entry restricted period expires. Persons performing activities other than tarpaulin cutting, removal, and repair described in sections 6784(b)(3), and (5) shall wear a full-face respirator that meets the requirements specified on the label.

(c) Notwithstanding subsection (a), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

6448. 1,3-Dichloropropene Field Fumigation – General Requirements.

The provisions of section 6448.1 apply to field soil fumigation using 1,3-Dichloropropene within the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, or Ventura ozone nonattainment areas during the May 1 through October 31 time period. Raised-tarpaulin nursery fumigations of less than one acre, or replant of individual vine or tree-sites (tree holes) less than one contiguous acre, are not considered field soil fumigation under the provision of section 6448.1.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

6448.1. 1,3-Dichloropropene Field Fumigation Methods.

(a) Broadcast equivalent application rate must not exceed 332 pounds of 1,3-Dichloropropene active ingredient per acre.

(b) Fumigation methods using post-water treatments must be applied at a rate of 0.15-0.25 inches per hour and meet one of the following water requirements depending on soil texture:

(1) coarse soils – a minimum of 0.40 inches of water per acre.

(2) loamy, moderately coarse, or medium texture soils – a minimum of 0.30 inches of water per acre.

(3) fine texture soils – a minimum of 0.20 inches of water per acre.

(c) If an application is made alternating fumigated and unfumigated areas (strip fumigation), the treated application block cannot be retreated with the same active ingredient between May 1 through October 31 during the same calendar year.

(d) The 1,3-Dichloropropene field soil fumigation must be made using only the methods described in this section. However within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, methods (1) is prohibited; method (2) is prohibited unless applied as a broadcast fumigation using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit; and method (5) is prohibited when 1,3-Dichloropropene is used in combination with chloropicrin unless applied as alternating fumigated and unfumigated areas (strip fumigation). In addition to labeling requirements for each of these methods, the following requirements shall apply.

(1) Nontarpaulin/Shallow/Broadcast or Bed.

Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(2) Tarpaulin/Shallow/Broadcast or Bed.

(A) Injection point must be at least 12 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.

(D) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.

(E) The operator of the property shall maintain a “tarpaulin repair response plan” pursuant to subsection (e).

(3) Nontarpaulin/Shallow/Broadcast or Bed/Three Post-Fumigation Water Treatments.

(A) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(B) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements of subsection (b):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment must consist of at least 0.20 inches of water, and must be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(4) Tarpaulin/Shallow/Bed/Three Post-Fumigation Water Treatments.

(A) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches.

(B) Tarpaulins must be buried under at least four inches of firmly packed soil at the ends of the rows.

(C) If using a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit, the tarpaulin must not be cut or perforated until a minimum of nine days following completion of injection to the application block.

(D) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (b):

1. Water must be applied by an irrigation method that uniformly covers the untarped area in the entire application block.

2. On the day of fumigation, the first water treatment to the untarped areas must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment to the untarped areas must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment to the untarped areas must be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatments(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(5) Nontarpaulin/Deep/Broadcast.

(A) Injection point must be at least 18 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(6) Tarpaulin/Deep/Broadcast.

(A) Injection point must be at least 18 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.

(D) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e)

(7) Chemigation (Drip System)/Tarpaulin.

(A) Drip system must be filled with water and tested for pressure variation, clogged emitters, and leaks before chemigation. The pressure must not exceed the pressure rating of the drip tape, and the pressure variation in the drip tape throughout the field must be less than three pounds per square inch. Drip system must be free of leaks and clogged emitters.

(B) The tarpaulin must be placed and inspected for tears, holes, or improperly secured edges prior to fumigating. Repairs and adjustments must be made before the chemigation begins.

(C) Ends of drip tape not covered by tarpaulin must be covered by at least two inches of soil.

(D) After chemigation, the drip system must be flushed with a volume of water at least three times the volume of the mainline and laterals of the drip system.

(E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(e) Tarpaulin Repair.

(1) If a tarpaulin is used, the operator of the property shall maintain a "tarpaulin repair response plan." The tarpaulin repair response plan must identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan must indicate the parties responsible for the repair and incorporate the applicable elements listed in (2) below.

(2) The "tarpaulin repair response plan" must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents, or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility and response time of repair; and environmental factors such as wind speed and direction.

(f) Notwithstanding subsection (d), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

6449. Chloropicrin Field Fumigation – General Requirements.

The provisions of section 6449.1 apply to field soil fumigation using chloropicrin within the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, or Ventura ozone nonattainment areas during the May 1 through October 31 time period. Raised-tarpaulin nursery fumigations of less than one acre or replant of individual vine or tree-sites (tree holes) less than one contiguous acre are not considered field soil fumigations under the provisions of section 6449.1.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code

6449.1. Chloropicrin Field Fumigation Methods.

(a) For products containing chloropicrin as the sole active ingredient, the field soil fumigation must be made using only the methods described in section 6447.3 or 6448.1. However within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas the methods described in the following sections are prohibited:

(1) 6447.3(a)(1), (2), and (6); and 6448.1 (d)(1) and (5);

(2) 6448.1(d)(5), unless applied as alternating fumigated and unfumigated areas (strip fumigation) and the broadcast equivalent application rate must not exceed 210 pounds of chloropicrin per acre; and

(3) 6447.3(a)(4), 6447.3(a)(3) and (5) if applied as alternating fumigated and unfumigated areas (strip fumigation), and 6448.1(d)(2) if applied as a bed fumigation, unless a tarpaulin that has been tested for permeability and determined by the U.S. Environmental Protection Agency to qualify for at least 60 percent buffer zone reduction credit is used.

(b) If an application is made alternating fumigated and unfumigated areas (strip fumigation) the treated application block cannot be retreated with the same active ingredient between May 1 through October 31 during the same calendar year.

(c) Notwithstanding subsection (a), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

6450. Metam-Sodium, Potassium N-methyldithiocarbamate (Metam-Potassium), and Dazomet Field Fumigation – General Requirements.

The provisions of sections 6450.1 and 6450.2 apply to field soil fumigation using metam-sodium, potassium N-methyldithiocarbamate (metam-potassium), or dazomet within the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, or Ventura ozone nonattainment areas during the May 1 through October 31 time period. Golf courses, tree applications for prevention of root graft disease transmission, wood decay uses, potting soil, (continued next page)

Replant of individual vine or tree-sites (tree holes) less than one contiguous acre, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses and other similar structures are not considered field soil fumigations under the provisions of sections 6450.1 and 6450.2.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code.
Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

6450.1. Metam-Sodium and Potassium N-methyldithiocarbamate (Metam-Potassium) Field Fumigation Methods.

(a) Broadcast equivalent application rate must not exceed 350 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium).

(b) Fumigations must start no earlier than one hour after sunrise and must be completed no later than one hour before sunset except for the method described in subsection (d)(9), (10), and (11).

(c) Fumigation methods using post-water treatments must be applied at a rate of 0.15-0.25 inches per hour and meet one of the following water requirements depending on soil texture:

(1) coarse soils- a minimum of 0.40 inches of water per acre.

(2) loamy, moderately coarse, or medium texture soils – a minimum of 0.30 inches of water per acre.

(3) fine texture soils – a minimum of 0.20 inches of water per acre.

(d) The metam-sodium or potassium N-methyldithiocarbamate (metam-potassium) field soil fumigation must be made using only the methods described in this section. However, within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, methods (1), (4), and (9) are prohibited. In addition to labeling requirements for each of these methods, the following requirements shall apply.

(1) Sprinkler/Broadcast or Bed/One Post-Fumigation Water Treatment.

(A) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatment below and meet the requirements in subsection (c):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, one post-fumigation water treatment must begin within 30 minutes of the completion of fumigation.

3. Any additional post-fumigation water treatment(s) may be applied at any time.

(2) Sprinkler/Broadcast or Bed/Two Post-Fumigation Water Treatments.

(A) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (c):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first post-fumigation water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(3) Sprinkler/Broadcast or Bed/Three Post-Fumigation Water Treatments.

(A) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements of subsection (d):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first post-fumigation water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment must be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(4) Nontarpaulin/Shallow/Broadcast or Bed/One Post-Fumigation Water Treatment.

(A) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (d)(1)(A).

(5) Nontarpaulin/Shallow/Broadcast or Bed /Two Post-Fumigation Water Treatments.

(A) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (d)(2)(A).

(6) Nontarpaulin/Shallow/Broadcast or Bed/Three Post-Fumigation Water Treatments.

(A) Fumigation must be completed in compliance with the post-fumigation water treatments pursuant to subsection (d)(3)(A).

(7) Chemigation (Drip System).

(A) Drip system must be filled with water and tested for pressure variation, clogged emitters, and leaks before chemigation. The pressure must not exceed the pressure rating of the drip tape and the pressure variation in the drip tape throughout the field must be less than three pounds per square inch. Drip system must be free of leaks and clogged emitters.

(B) After chemigation, the drip system must be flushed with a volume of water at least three times the volume of the mainline and laterals of the drip system.

(8) Rotary Tiller/Power Mulcher/Soil Capping.

(A) Application equipment must be followed immediately by soil compaction equipment.

(9) Flood.

(A) The fumigant must be applied with at least six inches of water per acre.

(10) 1:00 a.m. Start/Nontarpaulin/Shallow/Broadcast/Two Post-Fumigation Water Treatments.

- (A) The fumigation application must start no earlier than 1:00 a.m.
- (B) Fumigation must be completed in compliance with the post-fumigation water-treatments pursuant to subsection (d)(2)(A).
- (C) The following application equipment and procedures must be used:
 - (1) The application equipment must meet the following criteria:
 - (i) The shanks must be set on the three application tool bars, with the bars spaced 12 to 16 inches apart from front to back. The shanks must be staggered on each tool bar to produce a final overall shank spacing of 9 to 11 inches.
 - (ii) Injection depth on each shank must be 3 to 4 inches, 6 to 7 inches, and 9 to 10 inches.
 - (iii) Nitrogen must be used to purge the system before applicator bar is lifted out of the ground at any time.
 - (iv) The application tool bars must be followed by a ring roller that is at least as wide as the application tool bars, with four gauge wheels controlled by hydraulic cylinders to control depth and/or pressure; or with a coil packer that is at least as wide as the application tool bars.

(11) 4:00 a.m. / Start/ Sprinkler/Broadcast or Bed/Two –Fumigation Water Treatments.

- (A) Notwithstanding (a), in the Sacramento Metro and South Coast ozone nonattainment areas, broadcast equivalent application rate must not exceed 246 pounds active ingredient per acre for metam sodium or 270 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium).
- (B) Fumigation must start no earlier than 4 a.m.
- (C) Fumigation must be completed in compliance with post-fumigation water treatments pursuant to (d)(2)(A).

(12) Drench.

- (A) Notwithstanding (a), in the Sacramento metro and South Coast ozone nonattainment areas, broadcast equivalent application rate must not exceed 246 pounds active ingredient per acre for metam-sodium or 270 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium). In the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas, broadcast equivalent application rate must not exceed 90 pounds active ingredient per acre for metam-sodium or 98 pounds active ingredient per acre for potassium N-methyldithiocarbamate (metam-potassium).
- (B) Fumigation must be completed in compliance with the post fumigation water treatments pursuant to subsection (d)(2)(A).
- (e) Notwithstanding subsection (d), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 14005, and 14102, Food and Agricultural Code. Reference: Sections 11501, 14006, and 14102, Food and Agricultural Code.

6450.2. Dazomet Field Fumigation Methods.

(a) Fumigations must start no earlier than one hour after sunrise and must be completed no later than one hour before sunset.

(b) The field soil fumigation using dazomet is limited to methods specifically identified in the labeling. In addition to labeling requirements for each identified method, the fumigation must comply with the following.

(1) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below:

(A) Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

(B) On the day of fumigation, the first water treatment must consist of at least 0.20 inches of water, beginning within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must consist of at least 0.20 inches of water applied starting no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

(C) On the day following fumigation, a third post-fumigation water treatment must consist of at least 0.20 inches of water, and must be applied starting no earlier than one hour prior to sunset and completed by midnight.

(D) On the second day following fumigation, a fourth post-fumigation water treatment must consist of at least 0.20 inches of water, and must be applied starting no earlier than one hour prior to sunset and completed by midnight.

(E) Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(c) Notwithstanding subsection (b), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code.

Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

6451. Sodium Tetrathiocarbonate Field Fumigation - General Requirements.

The provisions of section 6451.1 apply to field soil fumigation using sodium tetrathiocarbonate within the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, or Ventura ozone nonattainment areas below during the May 1 through October 31 time period. Replant of individual vine or tree-sites (tree holes) less than one contiguous acre, and raised-tarpaulin nursery fumigations of less than one acre, and greenhouses and other similar structures are not considered field soil fumigations under the provisions of section 6451.1.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

6451.1. Sodium Tetrathiocarbonate Field Fumigation Methods.

(a) The field soil fumigation of sodium tetrathiocarbonate is limited to methods specifically identified in the labeling.

(b) Notwithstanding subsection (a), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005 and 14102, Food and Agricultural Code. Reference: Sections 11501, 12981, 14006 and 14102, Food and Agricultural Code.

6452. Reduced Volatile Organic Compound Emissions Field Fumigation Methods.

(a) For the Sacramento Metro and South Coast ozone nonattainment areas, the Director may approve use of a field fumigation method not described in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, and 6451.1 if the request is accompanied by scientific data documenting the volatile organic compound (VOC) emissions. The emission rating specified in section 6881 or the maximum emission rate (emission rating multiplied by the maximum broadcast equivalent application rate) must be no greater than any one of the methods for the same fumigant described in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, and 6451.1.

(b) For the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas, upon written request, the Director may approve use of a field fumigation method either not described or excluded from use in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, or 6451.1 if the request meets the following criteria:

(1) The request is accompanied by scientific data documenting the VOC emissions;

(A) The emission rating, as specified in section 6881, is no greater than any one of the methods for the same fumigant allowed for use in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas as specified in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, or 6451.1, or

(B) The maximum emission rate (emission rating multiplied by the maximum broadcast equivalent application rate) is no greater than any one of the methods for the same fumigant allowed for use in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas as specified in sections 6447.3, 6448.1, 6449.1, 6450.1, 6450.2, or 6451.1.

(c) Criteria the Director shall consider includes whether:

- (1) the data and information provided are sufficient to estimate emissions;
- (2) the results are valid as indicated by the quality control data; and
- (3) the conditions studied represent agricultural fields fumigated.

(d) The Director shall publish a notice of interim approval for a field fumigation method on the Department's Web site. The interim approval expires three years after the date of approval.

NOTE: Authority cited: Sections 11456, 12976, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 14006, and 14102, Food and Agricultural Code.

6452.1. Fumigant Volatile Organic Compound Emission Records and Reporting.

(a) Any person who applies field fumigants shall maintain records of fumigant applications pursuant to section 6624.

(b) Any person who applies field fumigants shall report the information specified in section 6626.

NOTE: Authority cited: Sections 11456, 12976, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 14006 and 14102, Food and Agricultural Code.

6452.2. Volatile Organic Compound Emission Limits.

(a) The Director shall establish field fumigant volatile organic compound (VOC) emission limits in the Volatile Organic Compound Emissions Inventory Report issued pursuant to section 6881 for the Sacramento Metro, South Coast, Southeast Desert, and Ventura ozone nonattainment areas where the difference between emissions in the most recent inventory report and the benchmarks for that area is five percent or less of the benchmarks or exceeds the benchmarks listed below during the May 1 through October 31 time period:

Ozone Nonattainment Area	Total Agricultural and Structural VOC Emissions Inventory Benchmarks from May 1 to October 31
Sacramento Metro	820,000 lbs. (2.2 tons/day average)
South Coast	3,200,000 lbs. (8.7 tons/day average)
Southeast Desert	340,000 lbs. (0.92 tons/day average)
Ventura	1,100,000 lbs. (3.0 tons/day average)

(1) If a VOC emission limit is in effect pursuant to (a) that limit must remain in effect until the commissioner does not condition permits to include a fumigant emission allowance specified in (c) (1) or (d)(1), and does not deny any permit or notice of intent specified in (c)(2) or (d)(2) in order to comply with the fumigant emission limit for two consecutive years.

(b) The Director shall calculate the field fumigant VOC emission limits specified in (a) by subtracting the nonfumigant pesticide VOC emissions from the total agricultural and structural VOC emissions inventory benchmarks. Nonfumigant pesticide product emissions will be the summation of the pounds of each pesticide product used multiplied by the VOC content (emission potential) for the specific product.

(c) For the Ventura ozone nonattainment area, the commissioner shall ensure that the fumigant limits specified in (a) are not exceeded during the May 1 through October 31 time period using one or more of the following methods for field soil fumigations:

- (1) Condition the permit to include fumigant emission allowances.
- (2) Deny any permit or notice of intent that would cause the fumigant limit to be exceeded.
- (3) Condition permit to prohibit or require any of the methods allowed by sections 6447.3(a), 6448.1(d), 6449.1(a), 6450.1(d), or 6452 during the May 1 through October 31 time period.

(d) For ozone nonattainment areas other than Ventura, the Director shall select one or more of the following methods to ensure the fumigant limits specified in (a) are not exceeded during the May 1 through October 31 time period:

(1) The Director establishes a fumigant emission allowance for each permittee, based on information provided the commissioners within the ozone nonattainment area. The total allowances in each ozone nonattainment area must not exceed the fumigant limit established for that area. Commissioners shall issue permits or amend existing permits to comply with the fumigant emission allowance(s) established by the Director. Commissioners shall deny any notice of intent that does not comply with the permittees' fumigant emission allowances.

(2) Commissioners deny any permit or notice of intent that would cause the fumigant limit to be exceeded.

(3) Commissioners condition permits to prohibit or require any of the methods allowed by sections 6447.3(a), 6448.1(d), 6449.1(a), 6450.1(d), or 6452 during the May 1 through October 31 time period.

(e) No person may apply a field fumigant during the May 1 through October 31 time period in an ozone nonattainment area for which a fumigant emission limit has been established pursuant to (a), unless their restricted material permit includes conditions specified in (c) or (d), or notice of intent is approved in writing.

(f) For the San Joaquin Valley ozone nonattainment area, if the difference between emissions in the most recent emissions inventory report and the 6,700,000 pound (18.1 tons per day) benchmark for this area is five percent or less of the benchmark or exceeds this benchmark during the May 1 through October 31 time period, the provisions of section 6884 shall apply.

NOTE: Authority cited: Sections 11456, 12976, 14005, and 14102, Food and Agricultural Code.

Reference: Sections 11501, 14006 and 14102, Food and Agricultural Code.

6452.3. Field Fumigant Volatile Organic Compound Emission Allowances.

(a) To obtain a field fumigant emission allowance, a permittee shall request an emission allowance by submitting information to the commissioner by a date designated by the commissioner. The information must include but is not limited to the following:

- (1) restricted materials permit number;
- (2) crop;
- (3) number of acres to be fumigated; and
- (4) identification of each site to be fumigated.

NOTE: Authority cited: Sections 11456, 12976, 14005 and 14102, Food and Agricultural Code.

Reference: Sections 11501, 14006 and 14102, Food and Agricultural Code

Article 1. General License Requirements
Sections 6500-6514

6500. License Duration.

The Director shall issue licenses and certificates for two years; provided, however, a license or certificate may be issued for less than two years based on when the applicant enters the two-year cycle described below. The term of the license or certificate is determined by the Director as follows:

Each license or certificate with a name beginning with A through L shall expire December 31 of the following even numbered year.

Each license or certificate with a name beginning with M through Z shall expire December 31 of the following odd numbered year.

The issuance of a two-year license or certificate in no way affects a ny annual county registration required by the Food and Agricultural Code.

NOTE: Authority cited: Sections 11456, 11502, 12005 and 12111, Food and Agricultural Code.
Reference: Section 11456, Food and Agricultural Code.

6502. Applications.

(a) An application for a new license or certificate shall be made on a form prescribed by the Director and shall be accompanied by the required application fee specified in Table 1 – License and Certificate Application Fees and Forms. The application fee shall allow an applicant a 12-month period to become licensed or certified.

(b) Beginning with those licenses or certificates expiring December 31, 2003, an application to renew a license or certificate shall be made on a form prescribed by the Director and shall be accompanied by the required renewal fee specified below in Table 2 – License and Certificate Renewal Fees and Forms. If the license or certificate is issued for more than one year pursuant to 6500, the applicant shall pay double the annual renewal fee.

(1) If the renewal application is not postmarked by December 31 of the year the license or certificate expires, a penalty of 50 percent of the renewal fee shall be added to the original amount due.

(c) Pursuant to this section, the prescribed forms, hereby incorporated by reference, are specified in Table 1 and Table 2 below.

Table 1 – License and Certificate Application Fees and Forms

License or Certificate Type	New Application Fee	Form
Pest Control Business License Additional Fee for each Pest Control Business Branch	\$160 \$ 80	Pest Control Business License Application PR-PML-042 (Rev. 08/10)
Pest Control Business License, Maintenance Gardener only	\$ 80	Maintenance Gardener Pest Control Business License Application PR-PML-004 (Rev. 08/10)
Pest Control Dealer License Additional Fee for each Dealer Branch	\$160 \$ 80	Pest Control Dealer License Application DPR-PML-041 (Rev. 08/11)
Pesticide Broker License Additional Fee for each Broker Branch	\$0 \$0	Pesticide Broker License Application (PB) DPR-PML-217 (Rev. 08/11)
Agricultural Pest Control Adviser License	\$ 80	Agricultural Pest Control Adviser Application DPR-PML-084 (Rev. 08/11)
Pest Control Aircraft Pilot Certificate	\$ 60	Aircraft Pilot Pest Control Certificate Application DPR-PML-005 (Rev. 08/11)
Pest Control Dealer Designated Agent License	\$ 25	Pest Control Dealer Designated Agent License Application DPR-PML-043 (Rev. 08/11)
Qualified Applicator License	\$ 80	Qualified Applicator License Application PR-PML-001 (Rev. 05/10)
Qualified Applicator Certificate	\$ 40	Qualified Applicator Certificate Application PR-PML-001A (Rev. 05/10)

Table 2 – License and Certificate Renewal Application Fees and Forms

License or Certificate Type	Annual Renewal Fee	Form
Pest Control Business License Additional Fee for each Pest Control Business Branch	\$160 \$ 80	Pest Control Business Renewal Application PR-PML-192 (Rev. 9/04)
Pest Control Business License, Maintenance Gardener only	\$ 80	Maintenance Gardener Pest Control Business Renewal Application PR-PML-186 (Rev. 9/04)
Pest Control Dealer License Additional Fee for each Dealer Branch	\$160 \$ 80	Pest Control Dealer License Renewal Application DPR-PML-191 (Rev. 9/04)
Pesticide Broker License Additional Fee for each Broker Branch	<u>\$0</u> <u>\$0</u>	Pesticide Broker License Renewal Application DPR-PML-190 (Rev. 1/06)
Agricultural Pest Control Adviser License	\$ 70	Individual License/Certificate Renewal Application DPR-PML-141 (Rev. 6/15)
Pest Control Aircraft Pilot Certificate	\$ 45	Individual License/Certificate Renewal Application DPR-PML-141 (Rev. 6/15)
Pest Control Dealer Designated Agent License	\$ 25	Individual License/Certificate Renewal Application DPR-PML-141 (Rev. 6/15)
Qualified Applicator License	\$ 60	Individual License/Certificate Renewal Application DPR-PML-141 (Rev. 6/15)
Qualified Applicator Certificate	\$ 30	Individual License/Certificate Renewal Application DPR-PML-141 (Rev. 6/15)

NOTE: Authority cited: Sections 11456, 11502, 11502.5, 12005 and 12111, Food and Agricultural Code.
Reference: Sections 11502.5, 11702, 11703, 11704, 11707, 11903, 11904, 12021, 12103, 12104, 12105, 12201, 12252, 12401, and 12404, Food and Agricultural Code.

6504. Examinations.

(a) The director shall schedule examinations at such times and places as he deems reasonable. Each applicant shall appear at a time and place designated by the director for examination.

(b) All applicants for a license or certificate will be required to pass an examination on the laws and regulations governing pesticide use and the safety precautions necessary to prevent injury.

(c) A passing score of 70 percent or greater is required to qualify for any license or certificate issued pursuant to Division 6 of the Food and Agricultural Code; or for a qualified applicator certificate.

(d) Applicants may request up to four examinations at each time and place.

NOTE: Authority cited: Sections 11456, 11502, 12005, 12024 and 12111, Food and Agricultural Code.
Reference: Sections 11702, 11905, 12024 and 12106, Food and Agricultural Code.

6505. Examination Fees.

(a) In addition to the application fee specified in section 6502(a), an agricultural pest control adviser, pest control aircraft pilot, pest control dealer designated agent, qualified applicator license, or qualified certificate applicant shall pay, if applicable:

- (1) A \$50 fee for the Laws, Regulations, and Basic Principles examination; and
- (2) A \$50 fee for each additional examination category requested.

(b) A license or certificate holder seeking to add an additional category shall submit a \$50 fee for each examination category requested accompanied by the required application form specified in 6502.

(c) A \$50 fee shall be submitted for each request to reschedule an examination due to the applicant's failure to obtain a passing score or failure to appear for a scheduled examination.

NOTE: Authority cited: Sections 11456 and 11515, Food and Agricultural Code.
Reference: Section 11515, Food and Agricultural Code.

6506. Acceptance of Prior Examination. [Repealed]

NOTE: Authority cited: Sections 407, 11502, 12005 and 12111, Food and Agricultural Code.
Reference: Sections 11702 and 12106, Food and Agricultural Code.

(2) The licensed agricultural pest control adviser or registered professional forester responsible for the direct supervision has:

(A) Made specific determinations regarding appropriate personal protective equipment, needed decontamination facilities, and how to safely conduct crop adviser tasks;

(B) Informed each employee under his or her direct supervision of the pesticide product and active ingredient(s) applied, method and time of application, the restricted entry interval, and determinations made pursuant to (A) above; and

(C) Instructed each employee under his or her direct supervision regarding which tasks to perform and how to contact him or her if the need arises.

(e) The provisions of this subchapter do not apply to employees handling consumer products packaged for distribution to, and use by, the general public, provided that employee use of the product is not significantly greater than the typical consumer use of the product.

NOTE: Authority cited: Section 12981, Food and Agricultural Code.

Reference: Sections 11501, 12973, 12980, and 12981, Food and Agricultural Code.

6722. Age. [Renumbered]

NOTE: Authority cited: Sections 407 and 12981, Food and Agricultural Code.

Reference: Sections 12980 and 12981, Food and Agricultural Code.

6723. Hazard Communication for Pesticide Handlers.

(a) Before employees are allowed to handle pesticides, the employer shall display a copy of a completed written Hazard Communication Information for Employees Handling Pesticides in Agricultural Settings (Pesticide Safety Information Series leaflet A-8) or Hazard Communication Information for Employees Handling Pesticides in Noncrop Settings (Pesticide Safety Information Series leaflet N-8), as applicable, at a central location in the workplace. Upon request, the employer shall read to the requesting employee, in a language understandable to that employee, Pesticide Information Series leaflet A-8/N-8. Pesticide Information Series leaflet A-8/N-8 shall be written by the Department of Pesticide Regulation in English and Spanish. Pesticide Information Series leaflets are available from the Department.

(b) The employer shall maintain, at a central location at the workplace accessible to employees who handle pesticides the following:

(1) Pesticide use records as specified in section 6624 (b), (c), and (e) for pesticides that have been handled by his or her employees;

(2) Copies of available Pesticide Safety Information Series leaflets which are applicable to the pesticides and handling activities listed in the pesticide use records referred to in subsection (b) (1); and

(3) A Safety Data Sheet (SDS), as specified by Title 8 California Code of Regulations, section 5194, for each pesticide listed in the pesticide use records referred to in subsection (b) (1). If the SDS is not provided by the registrant of a pesticide, the employer shall:

(A) Within seven working days of a request for a SDS from an employee, employee representative or employee's physician, make written inquiry to the registrant of the pesticide, asking that a SDS be sent to the employer. If the employer has made written inquiry within the last 12 months as to whether the pesticide is subject to the requirement for a SDS or the employer has made a written inquiry within the last 6 months requesting new, revised or later information on the SDS, the employer need not make additional written inquiry. A copy of the written inquiry shall immediately be sent to the person requesting the SDS;

(B) Notify the requester of the availability of the SDS or provide a copy of the SDS to the requester within 15 days of receipt of the SDS from the registrant; and

(C) If a response has not been received from the registrant within 25 working days of the date the inquiry was made, send the Department a copy of the inquiry with a notation that no response has been received. The employer is not precluded from obtaining and providing the SDS utilizing other more expedient methods in lieu of those provided in this subsection.

(c) The employer shall inform employees, before they are allowed to handle pesticides and at least annually thereafter, of the location and availability of the records and other documents listed in this section or relating to employee training, monitoring, and potential exposure. If the location of the records and other documents changes, an employer shall promptly inform his or her employees of the new location.

(d) The employer shall provide, upon request of his or her employee, employee representative, or employee's physician, access to any records or other documents required to be maintained pursuant to this chapter. Access shall be granted as soon as possible and not to exceed 48 hours from the date of the request.

INFORMATIONAL NOTE: Other requirements relating to hazard communication can be found in Sections 6602, 6618, 6619, 6724, 6726, 6738, 6744, 6764, 6766, 6770, and 6776.

NOTE: Authority cited: Section 12980, Food and Agricultural Code.

Reference: Sections 12980 and 12981, Food and Agricultural Code; and 29 Code of Federal Regulations, Part 1910.1200.

6723.1. Application-Specific Information For Handlers.

(a) The operator of property used for the commercial or research production of an agricultural plant commodity shall display, at a central location, the following application-specific information while employees are employed to handle pesticides:

- (1) Identification of the treated area;
- (2) Time and date of the application;
- (3) Restricted entry interval; and
- (4) Product name, EPA registration number, and active ingredients.

(b) The information shall be displayed within 24 hours of the completion of an application and include all applications that have been made to any treated field on the agricultural establishment within 1/4 mile of where employees will be working. Once displayed, the information shall remain displayed until the area no longer meets the definition of a treated field or handler employees will no longer be on the establishment, whichever occurs earlier.

(c) The original or copies of documents otherwise required to be maintained by this chapter may be used to meet the requirements of this section provided they contain the information required by this section.

NOTE: Authority cited: Section 12981, Food and Agricultural Code.

Reference: Sections 11501, 12973, 12980, and 12981, Food and Agricultural Code.

6724. Handler Training.

The employer shall assure that employees who handle pesticides have been trained pursuant to the requirements of this section and that all other provisions of this section have been complied with for employees who handle pesticides.

(a) The employer shall have a written training program. The training program shall describe the materials (e.g., study guides, pamphlets, pesticide product labeling, Pesticide Safety Information Series leaflets, Safety Data Sheets, slides, video tapes) and information that will be provided and used to train his or her employees and identify the person or firm that will provide the training. The training program shall address each of the subjects specified in subsection (b) that is applicable to the specific pesticide handling situation. The employer shall maintain a copy of the training program while in use and for two years after use, at a central location at the workplace.

(b) The training shall cover, for each pesticide or chemically similar group of pesticides, to be used:

- (1) Format and meaning of information, such as precautionary statements about human health hazards, contained in pesticide product labeling;
- (2) Hazards of pesticides, including acute and chronic effects, delayed effects, and sensitization, as identified in pesticide product labeling, Safety Data Sheets, or Pesticide Safety Information Series leaflets;
- (3) Routes by which pesticides can enter the body;
- (4) Signs and symptoms of overexposure;
- (5) Emergency first aid for pesticide overexposure;
- (6) How to obtain emergency medical care;
- (7) Routine and emergency decontamination procedures, including spill clean up and the need to thoroughly shower with soap and warm water after the exposure period;
- (8) Need for, limitations, appropriate use, and sanitation, of, any required personal protective equipment;
- (9) Prevention, recognition, and first aid for heat-related illness in accordance with Title 8 of the California Code of Regulations, section 3395;
- (10) Safety requirements and procedures, including engineering controls (such as closed systems and enclosed cabs) for handling, transporting, storing, and disposing of pesticides;
- (11) Environmental concerns such as drift, runoff, and wildlife hazards;
- (12) Warnings about taking pesticides or pesticide containers home;
- (13) Requirements of this chapter and chapter 4 relating to pesticide safety, Safety Data Sheets, and Pesticide Safety Information Series leaflets;
- (14) The purposes and requirements for medical supervision if organophosphate or carbamate pesticides with the signal word "DANGER" or "WARNING" on the labeling are mixed, loaded, or applied for the commercial or research production of an agricultural plant commodity;

(15) The location of the written Hazard Communication Information For Employees Handling Pesticides (Pesticide Safety Information Series leaflet A-8), other Pesticide Safety Information Series leaflets, and Safety Data Sheets;

(16) The employee's rights, including the right:

(A) To personally receive information about pesticides to which he or she may be exposed;

(B) For his or her physician or employee representative to receive information about pesticides to which he or she may be exposed; and

(C) To be protected against retaliatory action due to the exercise of any of his or her rights.

(c) The training shall be in a manner the employee can understand, be conducted pursuant to the written training program, and include response to questions.

(d) Training shall be completed before the employee is allowed to handle pesticides, continually updated to cover any new pesticides that will be handled, and repeated at least annually thereafter. Initial training may be waived if the employee submits a record showing that training meeting the requirements of this section and covering the pesticides and use situations applicable to the new employment situation was received within the last year. A certified applicator is considered trained for the purposes of this section.

(e) The date and extent of initial and annually required training given to the employee and the job to be assigned shall be recorded. This record shall be verified by the employee's signature and retained by the employer for two years at a central location at the workplace accessible to employees.

(f) The person conducting the training for employees who will be handling pesticides for the commercial or research production of an agricultural plant commodity shall be qualified as one of the following:

(1) A California certified commercial applicator;

(2) A California certified private applicator;

(3) A person holding a valid County Biologist License in Pesticide Regulation or Investigation and Environmental Monitoring issued by the Department of Food and Agriculture;

(4) A farm advisor employed by the University of California Extension Office;

(5) A person who has completed an "instructor trainer" program presented by one of the following:

(A) the University of California, Integrated Pest Management Program after January 1, 1993; or

(B) other instructor training program approved by the Director;

(6) A California licensed Agricultural Pest Control Adviser;

(7) A California Registered Professional Forester; or

(8) Other trainer qualification approved by the Director.

NOTE: Authority cited: Section 12981, Food and Agricultural Code.

Reference: Sections 12980 and 12981, Food and Agricultural Code.

Article 3. Field Worker Safety
Sections 6760-6778

6760. Employer Responsibility and Exceptions.

(a) Employers shall comply with the requirements of this article to protect employees who may enter treated fields.

(b) If only granular baits or attractants or repellents in traps have been applied in a field, the employer is exempt from the requirements of sections 6762 (Field Work During Application), 6764 (Fieldworker Training), 6766(a) and (b) (Emergency Medical Care), 6768 (Decontamination Facilities), 6770 (Entry After Pesticide Application), 6771 (Requirements for Early Entry Fieldworkers), 6772 (Restricted Entry Intervals), 6774 (Restricted Entry Interval Adjustments), and 6776 (Field Posting).

(c) Pesticide applications for areawide public pest control programs sponsored by governmental agencies, such as for fruit fly eradication, and those made by vector control agencies operating under cooperative agreements with the State Department of Health Services pursuant to section 116180 of the Health and Safety Code, and contractors of those agencies, are exempt from the requirements of this article.

(d) If only algacides have been used to treat the irrigation system, the employer is exempt from the requirements of sections 6762 (Field Work During Application), 6764 (Fieldworker Training), 6766(a) and (b) (Emergency Medical Care), 6768 (Decontamination Facilities), 6770 (Field Entry After Pesticide Application), 6771 (Requirements for Early Entry Fieldworkers), 6772 (Restricted Entry Intervals), 6774 (Restricted Entry Interval Adjustments), and 6776 (Field Posting).

(e) If pesticides have been applied only by injection directly into plants the employer is exempt from the requirements of this article. Direct injection does not include "hack and squirt" methods.

NOTE: Authority cited: Section 12981, Food and Agricultural Code.

Reference: Sections 12980 and 12981, Food and Agricultural Code.

6761. Hazard Communication for Field Workers.

(a) Whenever employees are working as field workers in a treated field, the employer shall display at the worksite, a copy of a completed written Hazard Communication Information for Employees Working in Fields (Pesticide Safety Information Series leaflet A-9). In the event that fieldworkers gather at a central location prior to transportation to the worksite, the Pesticide Safety Information Series leaflet A-9 may instead be displayed at that central location. Pesticide Safety Information Series leaflet A-9 shall be written by the department in English and Spanish. Upon request, the employer shall read to the requesting employee, in a language understandable to that employee, Pesticide Safety Information Series leaflet A-9. Pesticide Safety Information Series leaflets are available from the Department.

(b) The operator of the property shall maintain in a central location at the workplace accessible to employees, including the employees of labor contractors, who enter a treated field, the following:

(1) Pesticide use records specified in section 6624(b), (c), (d) and (e) for pesticides that have been applied to the field within the last two years;

(2) A Safety Data Sheet (SDS), as specified in Title 8, California Code of Regulations, section 5194, for each pesticide listed in the pesticide use records referred to in subsection (b)(1). If the SDS is not provided by the registrant of a pesticide, the operator of the property shall:

(A) Within 7 working days of a request for a SDS from an employee, employee representative or employee's physician, make written inquiry to the registrant of the pesticide, asking that a SDS be sent to the operator of the property. If the operator of the property has made a written inquiry within the last 12 months as to whether the pesticide is subject to the requirement for a SDS or the operator of the property has made a written inquiry within the last 6 months requesting new, revised or later information on the SDS, the operator of the property need not make additional written inquiry. A copy of the written inquiry shall immediately be sent to the person requesting the SDS;

(B) Notify the requester of the availability of the SDS or provide a copy of the SDS to the requester within 15 days of receipt of the SDS from the registrant; and

(C) If a response has not been received from the registrant within 25 working days of the date the inquiry was made, send the department a copy of the inquiry with a notation that no response has been received. The operator of the property is not precluded from obtaining and providing the SDS utilizing other more expedient methods in lieu of those provided in this subsection.

(c) The operator of the property shall inform his or her employees, before they are allowed to enter a treated field, of the location and availability of any records and other documents required by subsections (a) and (b). If the employees are employed by a labor contractor, the operator of the property shall inform the labor contractor of the location or changed location, of the records and other documents. The labor contractor shall provide that information to his or her employees. If the location of the records and other documents changes, the operator of the property and the labor contractor shall promptly inform his or her employees of the new location. The employer, including the labor contractor, shall also inform their employees that they, their physicians and their representatives have a right of access to the information and that the employees are protected against discharge or other discrimination due to the exercise of their rights under this section.

(d) The operator of the property shall provide, upon request of his or her employee, an employee of a labor contractor, employee representative, or an employee's physician, access to any records, documents and information required to be maintained by this chapter. Access shall be granted as soon as possible and not to exceed 48 hours from the date of the request.

INFORMATIONAL NOTE: Other requirements relating to hazard communication can be found in sections 6602, 6618, 6619, 6724, 6726, 6738, 6744, 6764, 6766, 6770, 6771, and 6776.

NOTE: Authority cited: Section 12981, Food and Agricultural Code.

Reference: Sections 12980 and 12981, Food and Agricultural Code; and 29 Code of Federal Regulations, Part 1910.1200.

Article 4. Fumigation
Sections 6780-6784

6780. General Fumigation Safe-Use Requirements.

(a) When fumigant concentrations cannot be controlled and an employee's exposure exceeds the Permissible Exposure Limit (PEL) as specified in Title 8, California Code of Regulations, section 5155, Airborne Contaminants, or more stringent requirements by product labeling, the employer shall provide and require the employee to wear approved respiratory protective equipment.

(b) 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:

- (1) Require the use of air-supplied respirator equipment,
- (2) Employ continuous monitoring to warn employees before the PEL is reached, or
- (3) Operate under the provisions of (c) below.

(c) Upon written application by an employer, the director will review, and may accept, a Fumigation Safety Program that describes methods, work practices, devices, or processes which the director determines will ensure that employees will not be exposed to concentrations of fumigants in excess of the PEL.

(d) The employer shall have an accident response 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.

NOTE: Authority cited: Sections 11456 and 12981, Food and Agricultural Code.
Reference: Section 12981, Food and Agricultural Code.

6782. Fumigation of Enclosed Spaces.

Enclosed spaces include vaults, chambers, greenhouses, vans, boxcars, ships, planes, vehicles, and tarpaulin-covered structures and commodities. When fumigating tarpaulin-covered commodities inside buildings, and areas or things inside greenhouses, this section applies to the entire structure.

(a) Whenever a pesticide is used for fumigation inside an enclosed space, at least two trained employees shall be present at all times when:

- (1) The fumigant is introduced into the enclosed space;
 - (A) Except, only one trained person is required to be present when solid fumigants (including aluminum phosphide, magnesium phosphide, and smoke cartridges) are introduced into the enclosed space from outside the enclosed space;
- (2) The enclosed space is entered for the purpose of facilitating aeration; and
- (3) The enclosed space is entered to determine the concentration of the fumigant and personal protective equipment is required by pesticide product labeling or regulation.

(b) The second employee shall have immediate access to the personal protective equipment required by the pesticide product labeling for handlers in the event entry into the fumigated enclosed space becomes necessary for rescue.

(c) Prior to the commencement of fumigation, warning signs shall be posted in plainly visible locations on or in the immediate vicinity of all entrances to the space under fumigation and

shall not be removed until fumigation and ventilation have been completed, and the premises are safe for reentering. Warning signs shall be printed in red on white background and shall contain, in English and Spanish, the following statement in letters not less than two inches in height: "DANGER-FUMIGATION". They shall also depict a skull and crossbones not less than one inch in height and shall state in letters not less than one-half inch in height the name of the fumigant, the date and time the fumigant was injected, and the name, address and telephone number of the applicator performing the fumigation.

(d) Employees shall not be allowed to enter fumigated enclosed areas, except to determine the fumigant concentration or facilitate aeration, unless the concentration in the area is known to be at or below the level specified in 6780(a) above.

(e) The fumigant shall not be released into an occupied work area.

(f) After completion of the fumigation, the treated area or products shall be managed so that employees entering the area or working with the treated products are not exposed to a concentration in excess of the level specified in 6780(a) above.

NOTE: Authority cited: Section 12981, Food and Agricultural Code.

Reference: Sections 12980 and 12981, Food and Agricultural Code.

6784. Field Fumigation.

(a) Signs required to be posted in accordance with section 6776(f) shall remain in place until aeration is complete.

(b) The provisions of this subsection pertain to field soil fumigations using methyl bromide applied pursuant to the fumigation methods described in section 6447.3.

(1) **Employer Recordkeeping.** The employer shall maintain records for all employees performing fumigation-handling activities. The records must identify the person, work activity(ies), date(s), duration of handling, the U.S. Environmental Protection Agency Registration Number, and the brand name of the methyl bromide product handled. The employer shall maintain these use records at a central location for two years.

(2) **Employee Protection Requirements.**

(A) Employees involved primarily in shoveling shall work only at the ends of the application rows.

(B) When required by this section, employees shall wear a certified respiratory protection as specified on the label. Employees shall wear the required respiratory protection during the entire duration of the fumigation-handling activity.

(3) **Limited Work Hours and Workdays.**

(A) No employee may work in fumigation-handling activities more than the hours specified in Table 1—Maximum Work Hours during the injection period and during the entry restricted period.

1. An employee may perform fumigation-handling activities without the work-hour limitations specified in Table 1—Maximum Work Hours if a full-face respirator is worn during the entire duration of the activity.

2. Multiple-Task Employees. An employee may work in more than one work task and/or application method in a 24-hour period as long as the employee's total work hours do not exceed the lowest total hours specified in Table 1—Maximum Work Hours for any one work task or application method performed.

(B) Notwithstanding subsection (b)(3)(A), an employee may work in fumigation-handling activities in a 24-hour period for the work hours specified in Table 2—Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month during the injection period and during the entry restricted period, provided the employee's total workdays performing fumigation-handling activities do not exceed three days in a calendar month.

1. An employee may perform fumigation-handling activities without the work-hour limitations specified in Table 2—Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month if a half-face respirator is worn during the entire duration of the activity.

2. Multiple-Task Employees. An employee may work in more than one work task and/or application method in a 24-hour period as long as the employee's total work hours do not exceed the lowest total work hours specified in Table 2—Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month for any one work task or application method performed.

Table 1. Maximum Work Hours

Fumigation Method/Activities	Maximum Application Rate (lbs. of actual methyl bromide per acre)	Maximum Work Hours in a 24-Hour Period Wearing Half-Face Respirator During Entire Fumigation-Handling Activity
Nontarpaulin/Shallow/Bed: Tractor Equipment Driving Supervising	200 lbs.	8* 8*
Nontarpaulin/Deep/Broadcast: Tractor Equipment Driving Supervising	400 lbs.	8* 8 ^{1/}
Tarpaulin/Shallow/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	7* 3* 3* 10 ^{1/} no limitation ^{2/}
Tarpaulin/Shallow/Bed: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	250 lbs.	no limitation 6* 6* 10 ^{1/} no limitation ^{2/}
Tarpaulin/Deep/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	7* 3* 3* 10 ^{1/} no limitation ^{2/}
Drip System – Hot Gas: Applicators Supervising Tarpaulin Cutting Tarpaulin Removal	225 lbs.	4* 4* 10 ^{1/} no limitation ^{2/}

^{1/}Exception: An employee may perform this activity without a half-face respirator provided the employee does not work more than one hour in a 24-hour period. The maximum one-hour work limitation may be increased in accordance with the formula located below.

^{2/}Exception: An employee may perform this activity without a half-face respirator provided the employee does not work more than three hours in a 24-hour period. The maximum three-hour work limitation may be increased in accordance with the formula located below.

*If the actual methyl bromide application rate is less than the maximum application rate shown in Table 1 or below in Table 2 for the particular fumigation method used, the maximum work hours may be increased in accordance with the following formula:

$$\left(\frac{\text{maximum application rate for method}}{\text{actual application rate}} \right) \times \begin{matrix} \text{maximum} \\ \text{work hours in a} \\ \text{24-hour period} \end{matrix} = \begin{matrix} \text{revised maximum} \\ \text{work hours in a} \\ \text{24-hour period} \end{matrix}$$

Table 2. Maximum Work Hours in a Maximum Three (3) Workdays Per Calendar Month

Fumigation Method/Activities	Maximum Application Rate (lbs. of actual methyl bromide per acre)	Maximum Work Hours in a 24-Hour Period Without the Use of Respirators
Nontarpaulin/Shallow/Bed: Tractor Equipment Driving Supervising	200 lbs.	4* 4*
Nontarpaulin/Deep/Broadcast: Tractor Equipment Driving Supervising	400 lbs.	4* 7*
Tarpaulin/Shallow/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	4* 3* 3* 4 7
Tarpaulin/Shallow/Bed: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	250 lbs.	4* 4* 4* 4 7
Tarpaulin/Deep/Broadcast: Tractor Equipment Driving Shoveling, Copiloting Supervising Tarpaulin Cutting Tarpaulin Removal	400 lbs.	4* 3* 3* 4 7
Drip System – Hot Gas: Applicators Supervising Tarpaulin Cutting Tarpaulin Removal	225 lbs.	2* 2* 4 7

(C) No employee shall be allowed to alternate between the workday and work-hour requirements specified in subsection (b)(3)(A) and (B) unless the employee did not perform fumigation-handling activities during the previous 30 days.

(4) **(Reserved)**

(5) **Tarpaulin Repair.**

(A) The operator of the property shall assure that a "**tarpaulin repair response plan**" is provided to the commissioner. The tarpaulin repair response plan must identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan must indicate the parties responsible for the repair and incorporate the applicable elements listed in (B) below.

(B) The "tarpaulin repair response plan" approved by the commissioner in the work site plan must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility and response time of repair; and environmental factors such as wind speed and direction.

(C) The ambient air in the damaged areas of the tarpaulin to be repaired must be tested for methyl bromide concentration by a certified applicator of the licensed pest control business that made the application, or by a certified applicator employee of the permittee, or certified applicator permittee, using a testing device as specified by the labeling. The certified applicator shall wear self-contained breathing apparatus when conducting these tests.

(D) All repair work areas must test less than 5 parts per million methyl bromide before any employee without respiratory protection shall be allowed to enter and conduct tarpaulin repair. Such employee is limited to one work hour in a 24-hour period, unless respiratory protection specified on the label is worn.

NOTE: Authority cited: Sections 11456 and 12981, Food and Agricultural Code.
Reference: Section 12981, Food and Agricultural Code