

TITLE 3. DEPARTMENT OF PESTICIDE REGULATION  
Field Fumigant Emissions Reduction  
DPR Regulation No. 07-002

NOTICE OF PROPOSED REGULATORY ACTION

The Department of Pesticide Regulation (DPR) proposes to amend sections 6000, 6400, 6502, and 6784(b); amend sections 6450, 6450.1, 6450.2, and 6450.3, and renumber to sections 6447, 6447.1, 6447.2, and 6447.3; and adopt sections 6445, 6445.5, 6448, 6448.1, 6449, 6449.1, 6450, 6450.1, 6450.2, 6451, 6451.1, 6452, 6452.1, 6452.2, 6452.3, and 6454.4 of Title 3, California Code of Regulations (3 CCR). This proposed action would adopt regulations to reduce smog-producing emissions from field fumigant use and, thereby, will achieve court-ordered state air quality objectives for pesticides.

SUBMITTAL OF COMMENTS

Any interested person may present comments in writing about the proposed action to the agency contact person named below. Written comments must be received no later than 5:00 p.m. on July 13, 2007. Comments regarding this proposed action may also be transmitted via e-mail <dpr07002@cdpr.ca.gov> or by facsimile transmission at (916) 324-1452.

A public hearing has been scheduled for the time and place stated below to receive oral comments regarding the proposed regulatory changes.<sup>1</sup>

DATE: July 10, 2007  
TIME: 5:00 p.m.  
PLACE: Doubletree Hotel Ontario Airport  
Lake Gregory Room  
222 North Vineyard Avenue  
Ontario, California 91764-4431

DATE: July 12, 2007  
TIME: 5:00 p.m.  
PLACE: University of California Kearney Agricultural Center  
Nectarine Room  
9240 S. Riverbend Avenue  
Parlier, California 93648

A DPR representative will preside at the hearing. Persons who wish to speak will be asked to register before the hearing. The registration of speakers will be conducted at the location of the hearing from 4:30 to 5:00 p.m. Generally, registered persons will be heard in the order of their registration. Any other person who wishes to speak at the hearing will be afforded the opportunity to do so after the registered persons have been heard. If the number of registered

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<sup>1</sup> If you have special accommodation or language needs, please notify DPR. TTY/TDD speech-to-speech users may dial 7-1-1 for the California Relay Service.

persons in attendance warrants, the hearing officer may limit the time for each presentation in order to allow everyone wishing to speak the opportunity to be heard. Oral comments presented at a hearing carry no more weight than written comments.

### EFFECT ON SMALL BUSINESS

DPR has determined that the proposed regulatory action does affect small businesses.

### INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW

State and federal law mandates that DPR protect human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management.

In 2006, a federal court ordered DPR to adopt regulations by January 2008 to achieve a 20 percent reduction of pesticide volatile organic compound (VOC) emissions from 1991 levels in certain regions that do not meet the one-hour ozone standards [ozone nonattainment areas (NAAs)] (Court Order concerning remedies, No. Civ. S-04-822 [E.D. Cal. filed April 6, 2006], enforcing *El Comite Para el Bienestar de Earlimart v. Helliker*, 416 F. Supp. 2d 912 [E.D. Cal. 2006]). These proposed regulations comply with the court order. In a parallel, but unrelated action taken in April 2004, the U.S. Environmental Protection Agency (U.S. EPA) issued a more stringent eight-hour ozone standard. California will submit additional State Implementation Plan (SIP) measures in 2007 to meet the new standard, which will include these regulations.

VOCs can contribute to the formation of ground-level ozone, which is harmful to human health and vegetation when present at high enough concentrations. The federal Clean Air Act requires each state to submit an SIP for achieving and maintaining federal ambient air quality standards for ozone. An ozone NAA is a geographical region in California that does not meet either federal or state ambient air quality standards. The U.S. Environmental Protection Agency designates NAAs in Title 40, Code of Federal Regulations (CFR) section 81.305. In 1994, California's Air Resources Board and DPR developed a plan to reduce pesticidal sources of VOCs in NAAs as part of the California SIP to meet the one-hour ozone standard. Under the 1994 SIP, DPR committed to reduce VOC emissions from agricultural applications of pesticides by specified amounts within specified time periods for five NAAs--Sacramento Metropolitan, San Joaquin Valley, South Coast, Southeast Desert, and Ventura.

A report of 2004 pesticide VOC emissions in five NAAs (DPR's *2006 Update of Volatile Organic Compound Emission Inventory*) showed decreases for two of the NAAs and increases for the others compared to 2003 data. The Sacramento Metropolitan and South Coast NAAs continue to meet the 1994 SIP targets, but significant efforts are needed to meet the SIP goals in the San Joaquin, Ventura, and Southeast Desert NAAs.

Regulation of fumigant use presents a unique challenge and opportunity for reducing pesticide VOC emissions. Fumigant use accounts for over 40 percent of the pesticide VOCs in the San Joaquin Valley NAA, and 80 percent or more for the Southeast Desert and Ventura NAAs. There are only seven fumigants used, each with distinct and specific pest control properties. Because

fumigant products typically do not contain components other than the active ingredient, they cannot be reformulated to reduce VOC emissions, as is being done with other pesticide products.

Measured in pounds, fumigants represent approximately 20 percent of all agricultural pesticides used in California. Some of the most widely used fumigants include methyl bromide, 1,3-Dichloropropene, chloropicrin, dazomet, sodium tetrathiocarbonate, and pesticides that generate methyl isothiocyanate (MITC), such as metam-sodium and potassium N-methyldithiocarbamate, which also is known by the chemical name metam-potassium. Before planting, farmers use fumigants to control disease, weeds, and pests in the soil. Fumigants are also used to disinfest structures and harvested commodities.

Fumigants are usually applied at a rate of several hundred pounds per acre, compared to a few pounds per acre for most other pesticides, so small proportional decreases in application or emission rates have a greater absolute effect on fumigant emissions.

DPR has modeled the proposed regulatory action after existing methyl bromide regulations by placing general and minimum standards for fumigant chemicals and restricting fumigation methods. Although the proposed regulations are modeled after the existing methyl bromide regulations, changes are also being made to those regulations to achieve VOC reductions.

DPR proposes to specify in regulation the total pounds of fumigant VOC emissions allowed in the NAAs in order to achieve a 20 percent reduction. DPR will determine a percentage of VOC emissions (percent of pounds applied) to be assigned to each fumigant application method and the method used to calculate emissions. Fumigant applicators would be required to maintain records of fumigant applications in each of the five NAAs, and forward them to product registrants and DPR. The information is contained on the pesticide use reports currently used by permittees or applicators. Submitting the additional fumigation method information along with the pesticide use report would meet this requirement. Registrants would be required to track and report to DPR the fumigant emissions in each of the five NAAs, and ensure that the emission limits are not exceeded. This regulatory approach is similar to that currently used by 1,3-Dichloropropene (1,3-D) registrants to track 1,3-D emissions.

The proposed regulations were designed to achieve a 20 percent reduction from the 1991 levels in all NAAs, as ordered by the court. Except for fumigation methods and licensing requirements, the proposed regulations will only apply to NAAs. The proposed restrictions on the fumigation methods and licensing requirements will apply statewide for uniformity and enforceability. Otherwise, implementation of the fumigation and licensing requirements would be difficult because some counties contain both NAAs and areas that are in attainment. This proposal provides for allocation among registrants of fumigant emissions in the San Joaquin, Southeast Desert, and Ventura NAAs. It also prohibits the sale of fumigants for use in those areas except in accordance with an allocation. This is designed to ensure that the total fumigant emissions are brought down to and remain at or below the limits on field fumigant emissions established by the regulations. The registrants will be required to track and report their fumigant emissions within each of the five NAAs, and limit their emissions to their allocations in areas where DPR has allocated fumigant emissions. The registrants will differentiate the emissions resulting from different application methods. The proposed regulations will specify allowable application

methods and the percentage of emissions associated with each fumigant and method. If a fumigant registrant exceeds its fumigant emissions allocation or fails to report its fumigant emissions, DPR may seek civil penalties of up to \$10,000 per violation. For subsequent violations, DPR may seek civil penalties of up to \$25,000 per violation and cancel the product registration. If the Sacramento Metro or South Coast NAAs exceed their fumigant emission limits, the regulations will require the Director to establish allocations for those areas as well. In addition, the Director may establish allocations in the Sacramento Metro and South Coast NAAs if it is determined that such allocations are necessary to prevent those areas from exceeding their fumigant emission limits in the future.

Additionally, DPR will reduce and document field fumigant VOC emissions by designating sodium tetrathiocarbonate as a restricted material, placing use restrictions on field soil fumigation methods; requiring fumigation applications to be made by a pest control business utilizing a qualified applicator holding a license in the proposed subcategory of field fumigation pest control; requiring persons applying the fumigants in the five NAAs to keep records of each application, and report monthly to the registrant and DPR, and make clarifying changes to the methyl bromide field fumigation work-hour requirements.

The proposed regulatory action pertains to the following seven fumigant active ingredients. Common brand names and/or alternative chemical names are given in parentheses as an aid to identification. methyl bromide, 1,3-Dichloropropene (Telone, Inline), chloropicrin, metam-sodium (Vapam, Sectagon), Potassium N-methyldithiocarbamate, also known as metam-potassium (K-Pam), dazomet (Basamid), and sodium tetrathiocarbonate (Enzone).

#### IMPACT ON LOCAL AGENCIES OR SCHOOL DISTRICTS

DPR has determined that the proposed regulatory action does not impose a mandate on local agencies or school districts, nor does it require reimbursement by the State pursuant to Part 7 (commencing with section 17500) of Division 4 of the Government Code because the regulatory action does not constitute a "new program or higher level of service of an existing program" within the meaning of section 6 of Article XIII of the California Constitution. DPR has also determined that no nondiscretionary costs or savings to local agencies or school districts will result from the proposed regulatory action.

#### COSTS OR SAVINGS TO STATE AGENCIES

DPR has determined that no savings or increased costs to any state agency will result from the proposed regulatory action.

#### EFFECT ON FEDERAL FUNDING TO THE STATE

DPR has determined that no costs or savings in federal funding to the state will result from the proposed action.

## EFFECT ON HOUSING COSTS

DPR has made an initial determination that the proposed action will have no effect on housing costs.

## SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT DIRECTLY AFFECTING BUSINESSES

DPR has made an initial determination that adoption of this regulation may have a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states. DPR has not considered proposed alternatives that would lessen any adverse economic impact on business and invites you to submit proposals. Submissions may include the following considerations:

- (A) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small businesses.
- (B) Consolidation or simplification of the compliance and reporting requirements for businesses.
- (C) The use of performance standards rather than prescriptive standards.
- (D) Exemption or partial exemption from the regulatory requirements for businesses.

Growers who use methyl bromide, 1,3-D, chloropicrin, metam-sodium, potassium N-methyldithiocarbamate (metam-potassium), dazomet, or sodium tetrathiocarbonate for field soil fumigation prior to planting agricultural crops will incur new restrictions on the use of these pesticides. Pest control businesses that apply the fumigant may also be impacted. The economic impacts result from a reduction in the number of allowable methods, restricting the methods of fumigant application that result in high emissions of VOCs. In many cases the eliminated methods are ones currently favored by growers, who will have to rely on more expensive methods under the new regulation.

Some businesses (growers) will incur a significant adverse economic impact because the emission limits will reduce the amount of fumigant available to them. In most of the ozone NAA areas, growers can make the necessary emission reductions by switching to low-VOC application methods. However, in the Ventura ozone NAA, growers will likely have to leave some fields untreated to obtain the required reductions. Growers will be able to recover the compliance costs by converting those fields to crops for which fumigation is not necessary, or other uses.

For each of the five ozone NAAs, any person who applies field fumigants will need to maintain records of fumigant applications. Additionally, any person who applies field fumigants must report the specified information to DPR and the product registrant's designated contact for the fumigant product used. Fumigant registrants will incur a significant economic impact because they will need to track the information, as well as provide a report to DPR. Fumigant registrants must ensure that the emission limits are not exceeded, hence reducing the use of their product.

DPR assumes that commercial applicators will be able to pass on additional licensing requirement costs to growers; and therefore, pest control business will not be significantly affected.

## COST IMPACTS ON REPRESENTATIVE PRIVATE PERSONS OR BUSINESSES

DPR has made an initial determination that the adoption of this regulation will have a significant cost impact on representative private persons or businesses. DPR has determined that the proposed regulation is a "major regulation" as defined in Health and Safety Code section 57005. A major regulation is any California Environmental Protection Agency (Cal/EPA) regulation that will have an economic impact of more than \$10 million on California business. DPR made this determination based upon an economic impact assessment performed by Cal/EPA. This economic impact assessment is listed in the "Documents Relied Upon" section of the Initial Statement of Reasons for this proposed regulatory action and is available from DPR. The Cal/EPA's economic impact assessment estimated the first-year cost of the regulation at approximately \$10-\$120 million. The economic impact assessment addresses these assumptions and the adjustments made to the estimates, as well as the overall reliability of the estimate.

The proposed regulation restricts certain methods of fumigant applications that result in high VOC emissions. In many cases the eliminated methods are ones currently favored by growers, who will have to rely on more expensive methods under the new regulation. Depending on the method, the cost to growers could range from \$10 to \$40 million per year.

The registrant who distributes the fumigants to the growers within Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, and Ventura ozone NAAs will be required to track fumigation use. DPR estimates this cost at \$0.05 per pound of fumigant emissions, for a total of \$900,000 per year.

As discussed above, according to DPR analysis, Ventura County, where many strawberry growers are located, is the only area in which growers will likely have to leave some fields untreated. The actual 2004 VOC emissions from fumigants in the Ventura ozone NAA were 4.8 tons per day. If growers were to use low-VOC application methods as specified by the proposed regulation, the emissions would have been 4.0 tons per day. The emission limit for Ventura County is 2.633 tons per day. This implies that the regulations would lead to a 34 percent reduction in acreage fumigated. Ventura County reported 30,231 acres fumigated in 2004. In a similar year under the proposed regulation, about 10,000 acres would have to go without fumigation. The estimated value of the crops grown on those 10,000 fumigated acres is \$80 million.

This \$80 million estimated value may be too high. The analysis assumed that all the acres left untreated would have been used to grow strawberries. Strawberries are a high-value crop. Thus other crops requiring fumigation in Ventura County would be the first to lose acres, for a much lower loss per acre. Assuming the \$80 million estimated value is correct, that figure does not represent the actual loss, because growers would be expected to recoup at least some portion of the value through converting the land to other uses. For example, growers that stop growing strawberries could grow a crop that does not require fumigation. For some growers, the price premium on organic strawberries can compensate for the reduced yield and extra labor cost resulting from growing strawberries without fumigation. Thus, the cost impact of losing fumigated acreage in Ventura County is highly uncertain, ranging from no loss to up to \$80 million.

The cost to current qualified applicators to add a new field fumigation subcategory will be \$50 each, and the cost for new licensees will be \$130 each. The total licensing cost cannot be reliably estimated due to the unknown number of current and new licensees. However, the total cost would be negligible compared to the cost of the other regulation provisions.

#### IMPACT ON THE CREATION, ELIMINATION, OR EXPANSION OF JOBS/BUSINESSES

DPR has determined it is unlikely the proposed regulatory action will impact the creation or elimination of jobs, the creation of new businesses or the elimination of existing businesses, or the expansion of businesses currently doing business within the State of California.

#### CONSIDERATION OF ALTERNATIVES

DPR must determine that no reasonable alternative considered by the agency, or that has otherwise been identified and brought to the attention of the agency, would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons or businesses than the proposed regulatory action.

#### AUTHORITY

This regulatory action is taken pursuant to the authority vested by FAC sections 11456, 11501, 11502, 12111, 12781, 12976, 12981, 14001, 14004.5, 14005, 14102, 14023, and 14151.

#### REFERENCE

This regulatory action is to implement, interpret, or make specific FAC sections 11456, 11501, 12111, 12781, 12976, 12981, 14001, 14004.5, 14005, 14102, and 14151.

#### AVAILABILITY OF STATEMENT OF REASONS AND TEXT OF PROPOSED REGULATIONS

DPR has prepared an Initial Statement of Reasons, and has available the express terms of the proposed action, all of the information upon which the proposal is based, and a rulemaking file. A copy of the Initial Statement of Reasons and the proposed text of the regulation may be obtained from the agency contact person named in this notice. The information upon which DPR relied in preparing this proposal and the rulemaking file are available for review at the address specified below.

#### AVAILABILITY OF CHANGED OR MODIFIED TEXT

After the close of the comment period, DPR may make the regulation permanent if it remains substantially the same as described in the Informative Digest. If DPR does make substantial changes to the regulation, the modified text will be made available for at least 15 days prior to adoption. Requests for the modified text should be addressed to the agency contact person named in this notice. DPR will accept written comments on any changes for 15 days after the modified text is made available.

AGENCY CONTACT

Written comments about the proposed regulatory action; requests for a copy of the Initial Statement of Reasons, the proposed text of the regulation, and a public hearing; and inquiries regarding the rulemaking file may be directed to:

Linda Irokawa-Otani, Regulations Coordinator  
Office of Legislation and Regulations  
Department of Pesticide Regulation  
1001 I Street, P.O. Box 4015  
Sacramento, California 95812-4015  
(916) 445-3991

Note: In the event the contact person is unavailable, questions on the substance of the proposed regulatory action may be directed to the following person at the same address as noted above:

Randy Segawa, Agriculture Program Supervisor  
Environmental Monitoring Branch  
(916) 324-4137

This Notice of Proposed Action, the Initial Statement of Reasons, and the proposed text of the regulation are also available on DPR's Internet Home Page <<http://www.cdpr.ca.gov>>.

AVAILABILITY OF FINAL STATEMENT OF REASONS

Following its preparation, a copy of the Final Statement of Reasons mandated by Government Code section 11346.9(a) may be obtained from the contact person named above. In addition, the Final Statement of Reasons will be posted on DPR's Internet Home Page and accessed at <<http://www.cdpr.ca.gov>>.

DEPARTMENT OF PESTICIDE REGULATION

\_\_\_\_\_  
Director

\_\_\_\_\_  
Date