

## Rulemaking Proposal: Field Fumigation Subcategory for the Qualified Applicator License/Certificate

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### Background

In May 2006, the Department of Pesticide Regulation (DPR) launched a comprehensive initiative to improve air quality statewide and meet several legal obligations. The Air Quality Initiative targets air toxins and smog-producing chemicals from pesticide emissions, particularly those that are volatile organic compounds (VOCs). The Air Quality Initiative focuses on four areas, one of which is reducing emissions from fumigants. Information on the Air Quality Initiative is available on DPR's Web site at <http://www.cdpr.ca.gov/docs/empm/ehap.htm>.

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### DPR's implementation strategy

DPR proposes to implement regulations that will seek to reduce VOC emissions primarily through changes to fumigation methods. The regulations may also include other provisions to ensure appropriate pre-fumigation evaluation, adequate supervision of fumigations, and reduction in exposures. They will not address post-harvest commodity and other types of fumigations, because doing so would significantly add to the complexity of the proposed regulations, and such fumigations have a negligible effect on VOC emissions. To comply with a court order, these regulations will be proposed and noticed in March 2007, and enacted by January 1, 2008.

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### DPR's Licensing and Certification implementation strategy

As part of these regulations, DPR's Licensing and Certification program proposes to **add a field fumigation subcategory to the qualified applicator license and certificate (QAL/QAC)** to ensure competency in the application of field fumigants. Ensuring competency in this area will indirectly reduce VOC emissions by preventing incorrect fumigant applications. It will also protect public safety by reducing fumigant drift and exposure incidences.

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**Proposed rulemaking action**

DPR’s Licensing and Certification program is currently considering a rulemaking action with the following provisions:

1. All field fumigant applications are to be made by a licensed pest control business (PCB). Private applicators will no longer be allowed to make fumigant applications.
  2. An operator of a property will still be the one applying for a restricted materials permit from his/her local county agricultural commissioner (CAC), but the application must be made by a licensed PCB.
  3. The licensed pest control business must have a designated person holding a QAL in the field fumigation pest control subcategory that is responsible for all pest control operations.
  4. A person holding a QAL or QAC in the field fumigation pest control subcategory must be present at the application site during fumigation handling activities, excluding irrigation equipment setup and removal and tarpaulin cutting and removal.
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**Why this rulemaking action is needed**

Currently, fumigant applications may be made by private applicators, which Section 6000, Title 3, California Code of Regulations defines as “an individual who uses or supervises the use of a pesticide for the purpose of producing an agricultural commodity on property owned, leased, or rented by him/her or his/her employer.”

However, this proposed rulemaking action would limit fumigant applications to licensed PCBs utilizing a person holding a QAL or QAC in the field fumigation pest control subcategory. This action is necessary for:

- ensuring that applicators have the most current knowledge of fumigant laws and regulations as well as the specialized training and knowledge required for properly conducting fumigations. Other elements of the proposed regulations will increase the complexity of fumigant legal requirements and require precise application methods to reduce VOC emissions.
  - expediting the workload of CACs who will be evaluating work site plans, since PCBs are already required to register with the CACs in the counties where they work.
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**How this rulemaking action would affect pesticide applicators**

If this rulemaking action is approved, pesticide applicators who want to perform field fumigation activities would have to obtain the QAL or QAC in the field fumigation pest control subcategory. They may do so by passing both the:

- Laws and Regulations examination
- Field Fumigation Pest Control Subcategory examination.

The Field Fumigation Pest Control Subcategory examination will be the same for both the QAL and QAC. However, the Laws and Regulations examination will be different.

*Note:* Individuals currently qualified to make fumigant applications under the Plant Agriculture category of the QAL/QAC may be grandfathered into the field fumigation pest control subcategory, exempting them from these examination requirements. However, these individuals will be subject to the same license renewal requirements as all other fumigant applicators.

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**Additional CE requirement**

In conjunction with this rulemaking action, DPR's Licensing and Certification program is considering an additional CE requirement:

- Individuals holding a QAL or QAC in the field fumigation pest control subcategory will have to obtain 1 hour of DPR-approved field fumigation CE in order to renew. This hour will be included in the currently required CE hours to renew their license or certificate.
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**History of reducing pesticidal sources of VOCs**

Most fumigants are VOCs and their use contributes 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 a State Implementation Plan (SIP) for achieving and maintaining federal ambient air quality standards, including a federal 1-hour standard for ozone. Non-attainment areas (NAAs) are regions in California that do not meet air quality standards. In 1994, California's Air Resources Board (ARB) and DPR developed a plan to reduce pesticidal sources of VOCs in NAAs as part of the California SIP to meet the federal 1-hour ozone standard. Under the 1994 SIP, DPR committed to reduce VOC emissions from agricultural and commercial structural applications of pesticides by specified amounts within specified time periods for five NAAs.

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**DPR's legal obligations**

In 2006, a federal court ordered DPR to achieve a 20% VOC reduction from 1991 levels in all NAAs through regulation that must be effective by January 1, 2008. Also, in April 2004, the U.S. EPA issued a more stringent 8-hour ozone standard, likely requiring additional VOC reductions. California will prepare a new SIP for 2007 and will need additional VOC reductions from all sources to meet the new ozone standard.

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**Challenges in reducing VOCs from fumigants**

Reducing VOCs from fumigant use presents several unique challenges, including the following:

- Fumigants represent over 40 percent of the pesticide VOC emissions in the San Joaquin NAA and 80 percent or more for the Southeast Desert and Ventura NAAs, yet there are only seven fumigants and each have distinct and specific pest control properties.
  - Since fumigants typically do not contain components other than the active ingredient, there is not the option of product reformulation to reduce VOC emissions, as is being done for other pesticide products as part of the Air Quality Initiative.
  - Fumigants are usually applied at rates of several hundred pounds per acre, compared to a few pounds per acre as for most other pesticides, so small proportional decreases in application or emission rates have a greater absolute effect on fumigant emissions. Reduction of the application rates can achieve VOC reductions, yet care must be taken to ensure that pest management efficacy is retained.
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