

Regulatory Update on Volatile Organic Compound Emissions from Pesticides

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Under the Clean Air Act, California must meet national standards for air pollutants and must specify how it plans to achieve these standards in a State Implementation Plan (SIP). SIPs require the control of emissions of nitrogen oxides and volatile organic compounds (VOCs) because they are precursors to ozone. Under California's SIP, the Department of Pesticide Regulation (DPR) must track and control VOC emissions from pesticide products used in agriculture and by structural applicators in five ozone nonattainment areas (NAAs): the Sacramento Metro area, the San Joaquin Valley, the Southeast Desert region, Ventura County and the South Coast area. Under the SIP, DPR is required to reduce pesticide VOCs during May-October (peak ozone season) by 12 percent in the San Joaquin Valley and 20 percent in the other four NAAs, compared to 1990 levels. The SIP goals have been met in all five NAAs since 2007.

The SIP reduction goals have been met primarily due to DPR's 2008 regulations that reduce VOC emissions from fumigant pesticides. These regulations require "low-emission" fumigation methods in the San Joaquin Valley, the Southeast Desert, and Ventura County NAAs during May-October. Additionally, Ventura County has a fumigant emission limit. The county agricultural commissioner enforces the limit through allowances issued to growers, or tracking and stopping fumigations once the limit is reached.

The fumigant regulations provide sufficient controls to meet the SIP goals in at least four of the NAAs, even for the highest pesticide use years. The San Joaquin Valley NAA may not meet the goal for the highest use years because most of its pesticide VOCs come from nonfumigant products. For this reason, the SIP requires DPR to implement restrictions on nonfumigant products for the San Joaquin Valley. DPR's proposed regulations would: 1) designate certain abamectin, chlorpyrifos, gibberellins, and oxyfluorfen products as "high-VOC" based on a product's VOC content; 2) require pesticide dealers selling high-VOC products for use in San Joaquin Valley to provide VOC information to purchasers; 3) require growers using high-VOC products in the San Joaquin Valley during May-October to obtain a pest control adviser recommendation prior to application to any of seven crops: alfalfa, almond, citrus, cotton, grape, pistachio, or walnut; and 4) prohibit most applications of high-VOC products to the seven crops in the San Joaquin Valley during May-October, if pesticide VOC emissions exceed a trigger level. The regulations should go into effect in November 2013.