

INITIAL STATEMENT OF REASONS AND PUBLIC REPORT
DEPARTMENT OF PESTICIDE REGULATION

Title 3. California Code of Regulations
Amend Sections 6400, 6452.4, 6624, and 6860
Adopt Sections 6446 and 6446.1

Methyl Iodide: Designating as a Restricted Material, Listing as a Toxic
Air Contaminant, and Use Requirements as a Volatile Organic Compound

This is the Initial Statement of Reasons required by Government Code section 11346.2 and the public report specified in section 6110 of Title 3, California Code of Regulations (CCR). Section 6110 meets the requirements of Title 14 CCR section 15252 and Public Resources Code section 21080.5 pertaining to certified state regulatory programs under the California Environmental Quality Act.

SUMMARY OF PROPOSED ACTION/PESTICIDE REGULATORY PROGRAM
ACTIVITIES AFFECTED

The Department of Pesticide Regulation (DPR) proposes to amend sections 6400, 6452.4, 6624, and 6860; and adopt sections 6446 and 6446.1. The pesticide regulatory program activities that will be affected by the proposal are those pertaining to pesticide chemicals designated as state restricted materials, environmental monitoring, and pesticide enforcement. In summary, the proposed action would designate methyl iodide as a state-restricted material; incorporate it into DPR's volatile organic compound regulatory program; and list methyl iodide as a toxic air contaminant on the basis of its listing as a federal hazardous air pollutant pursuant to Food and Agricultural Code (FAC) section 14021. The proposed action would, in part, make permanent the emergency regulations that are currently in effect.

SPECIFIC PURPOSE AND FACTUAL BASIS

DPR protects human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management. DPR's strict oversight begins with product evaluation and registration; and continues through statewide licensing of commercial and private applicators, pest control businesses, and advisers; environmental monitoring; and residue testing of fresh produce. This statutory scheme is set forth primarily in FAC Divisions 6 and 7.

Pesticides must be registered (licensed for sale and use) with the U.S. Environmental Protection Agency (U.S. EPA) before they can be registered in California. DPR's preregistration evaluation is in addition to, and complements, U.S. EPA's. Before a pesticide can be sold or used, both agencies require data on a product's toxicology and chemistry--how it behaves in the environment; its effectiveness against targeted pests and the hazards it poses to nontarget organisms; its effects on fish and wildlife; and degree of worker exposure.

In 2007, U.S. EPA registered methyl iodide (also called iodomethane) a preemergent fumigant used in agriculture. Injected into soil before crops are planted, the fumigant spreads through the soil to kill weed seeds, plant diseases, and nematodes. It can be applied by drip irrigation under a special protective tarpaulin, or injected into the soil using a tractor that automatically places a tarp over the ground after application. Based on its acute inhalation toxicity, U.S. EPA designated methyl iodide as a federally restricted-use pesticide pursuant to section 3 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Sales and use of this pesticide are limited to certified applicators and those under their direct supervision, thus controlling the number of persons with direct access to the fumigant.

Concurrent with applications received at the federal level, DPR received applications requesting registration of methyl iodide products for sale and use in California. To register a pesticide, DPR must ensure it can be used safely. In developing effective measures to avoid potentially unsafe pesticide exposures, DPR reviewed studies on possible health and environmental effects, considered a wide range of scientific input, and followed protocols of both U.S. EPA and the World Health Organization. Upon completing its review, DPR established a regulatory concentration target level of 32 parts per billion (ppb) averaged over a 24-hour period for bystanders--five times lower than U.S. EPA's level of 150 ppb, and 96 ppb averaged over an 8-hour period for workers--half of U.S. EPA's allowable level of 193 ppb.

On April 30, 2010, DPR issued a notice of proposed decision to register products containing methyl iodide for use to treat soil before planting of a limited number of crops including strawberries, tomatoes, stone fruits, tree nuts, vines, nurseries, peppers, turf, and field-grown ornamentals. In order to meet these lower exposure standards, DPR required the registrant to obtain U.S. EPA approval on California-specific product labels that have significantly more stringent use controls than U.S. EPA's. Product label approval is obtained by U.S. EPA because under federal law, the federal agency has sole authority over pesticide labels. U.S. EPA approved the California-specific product labels on November 17, 2010. On December 20, 2010, DPR's Director registered methyl iodide for the uses mentioned above.

Prior to registering methyl iodide, DPR filed emergency regulations with the Office of Administrative Law (OAL File No. 2010-1208-01E) to specifically list methyl iodide as a California restricted pesticide in section 6400(e), thereby triggering the requirement for a permit before its use. The emergency regulation became effective on December 20, 2010.

Title 3 CCR section 6400(a) states that any pesticide labeled as a "restricted use pesticide" pursuant to section 3 of FIFRA is also designated as a restricted material in California. Generally, possession and use of a restricted pesticide registered for agricultural use are allowed only under a permit issued from the local county agricultural commissioner (CAC). However, 3 CCR section 6414(b) exempts pesticides deemed restricted materials only by operation of section 6400(a) from permit requirement provided the pesticide is used by or under the supervision of a certified applicator, unless otherwise required by the commissioner. The certified applicator requirement assures that use will be supervised by individuals that have demonstrated their knowledge and skills to properly use pesticides. The permit requirement added by this

regulation will provide an immediate and effective mechanism to facilitate CACs oversight of methyl iodide use to ensure label restrictions are followed and allow CACs to evaluate its use under the specific local conditions of each application site and implement further restrictions through permit conditions if necessary.

The permit process is unique to California. The permit process has the advantage of allowing flexibility in requirements. The problems unique to that use site can be specifically addressed without placing unnecessary burdens on other applications.

In addition, methyl iodide is classified as a volatile organic compound (VOC). A VOC is any organic compound other than those exempted by U.S. EPA pursuant to Title 40, Code of Federal Regulations (CFR) section 51.100. 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 a State Implementation Plan (SIP) for achieving and maintaining federal ambient air quality standards for ozone. An ozone nonattainment area (NAA) is a geographical region in California that does not meet either federal or state ambient air quality standards. U.S. EPA designates ozone NAAs in CFR section 81.305. Under the SIP, DPR is committed to reduce VOC emissions from agricultural applications of pesticides by specified amounts during the peak ozone season of May 1 through October 31 for five NAAs--Sacramento Metropolitan, San Joaquin Valley, South Coast, Southeast Desert, and Ventura.

Also, the emergency action included a new provision in 3 CCR that specifies the only allowed field fumigation application methods for methyl iodide during the May 1 through October 31 time period that serve as the basis for the calculation of VOC emissions included in the VOC reporting and allowance system set forth in sections 6452.3 and 6452.4 as required to implement the SIP. It also requires the application method used to apply methyl iodide to be specified in the pesticide use report to allow VOC emissions to be calculated based on the reported use.

In January 2008, DPR adopted regulations to reduce pesticide VOC emissions in five ozone NAAs. Those regulations, in part, adopted field fumigation methods for seven fumigant active ingredients, and required DPR to issue an annual emission inventory report that includes an analysis of pesticide VOC emissions, emission potentials, and emission ratings in the five ozone NAAs. Classified as a VOC, DPR will need to account for methyl iodide emissions in its report to develop regulatory strategies that will be imposed in the upcoming peak ozone time period of May 1 through October 31 to reduce VOC emissions.

Pursuant to section 6452.4(b), a draft emission inventory report is made available to the public for comments. The draft report will be made available to the public for a 45-day comment period for submission of written statements or arguments to the Director for review before finalizing the Annual VOC Emission Report. Section 6452.4 does not specify methyl iodide emissions to be accounted for in the draft report; therefore, the emission inventory and all of methyl iodide's factors (emission potentials, emission ratings, analyses) will not be reflected. The following immediate action is necessary to include methyl iodide in the draft annual report used to

determine if allowances must be implemented in order for DPR to continue to achieve and maintain federal ambient air quality standards for ozone as required by the SIP.

DPR proposes to adopt section 6446 to clarify that fumigation methods specified in proposed section 6446.1 are required in the five NAAs during the peak ozone period. These fumigation methods have known emission ratings. Fumigation methods with known emission ratings must be used within the five NAAs during May-October in order to track emissions. Replant of individual vine or tree-sites (tree holes) less than one contiguous acre is not considered field soil fumigations under the provisions of section 6446.1. Emissions are negligible under these conditions.

DPR proposes to add section 6446.1(a) to allow field soil fumigations of methyl iodide identified in the labeling in order to facilitate VOC reduction and tracking. Also, DPR proposes to add a subsection (b) pertaining to use of a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260. While it is critical to be able to limit application methods to allow emission tracking, it is important not to block research to develop lower emission methods. Currently, research is underway to develop new application methods (e.g., new tarpaulins, equipment, lower application rates) with lower emissions than the methods described on the label. Without this provision, research would not be allowed to continue. Continuing to allow experimental research will provide immediate and necessary flexibility for innovations that reduce emissions to occur.

Also, DPR proposes to amend 6624(f) to require persons using methyl iodide within the five NAAs to report a description of the method of application in the pesticide use report required by that section. This reported information is critical in determining VOC emissions.

The action of adopting these methyl iodide field fumigation use requirements described above is critical in DPR's ability to meet its obligation to achieve and maintain federal ambient air quality standards for ozone as required by the SIP. Methyl iodide is considered an alternative to methyl bromide and is considered a VOC emitter under federal law. Under the federal Clean Air Act, 70 percent of methyl bromide production has been phased out.

This proposed action would permanently incorporate methyl iodide into DPR's volatile organic compound regulatory program.

Additionally, FAC section 14021 provides that, "Pesticides which have been identified as hazardous air pollutants pursuant to section 7412 of Title 42 of the United States Code shall be identified by the Director as a toxic air contaminant." Existing section 6860(b) contains a list of pesticides that have been designated as TACs pursuant to FAC 14021. DPR proposed to list methyl iodide as a TAC on the basis of its listing as a federal hazardous air pollutant and its presence in pesticides currently registered for use in California.

CONSULTATION WITH OTHER AGENCIES

DPR has consulted with the California Department of Food and Agriculture during the development of the text of proposed regulations as specified in FAC section 11454, and the February 6, 1992, Memorandum of Agreement that was developed as provided in section 11454.2. Copies of correspondence with the California Department of Food and Agriculture are contained in the rulemaking file.

Additionally, DPR consulted with the California Air Resources Board during the development of the proposed regulations.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION (GOVERNMENT CODE SECTION 11346.2(b))

DPR has not identified any feasible alternatives to the proposed regulatory action that would lessen any possible adverse economic impacts, including any impacts on small businesses, and invites the submission of suggested alternatives.

ECONOMIC IMPACT ON BUSINESSES

The proposed regulations will not have a significant adverse economic impact upon business. The document relied upon to make this determination is listed in the "Documents Relied Upon" section of this initial statement of reasons and is available from DPR.

IDENTIFICATION OF AN SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECT THAT CAN REASONABLE BE EXPECTED TO OCCUR FROM IMPLEMENTING THIS PROPOSAL

DPR has not identified any significant adverse environmental effect from the proposed regulatory action.

EFFORTS TO AVOID UNNECESSARY DUPLICATION WITH FEDERAL REGULATIONS

The proposed regulatory action does not duplicate or conflict with the Code of Federal Regulations.

As noted in this ISR, the federal Clean Air Act requires each state to submit a SIP for achieving and maintaining federal ambient air quality standards, including the standard for ozone. In 1994 (and revised in 2007 and 2009), ARB and DPR developed a plan to reduce pesticidal sources of VOCs in NAAs as part of the California SIP to meet the ozone standard.

DOCUMENTS RELIED UPON

1. Notice of Proposed Decision to Register Pesticide Products Containing Methyl Iodide and Public Report. Department of Pesticide Regulation, Pesticide Registration Branch. April 30, 2010.
2. Notice of Final Decision to Register Pesticide Products Containing Methyl Iodide and Written Evaluation. Department of Pesticide Regulation, Pesticide Registration Branch. December 1, 2010.
3. Storelli, Stephen, California Environmental Protection Agency, Agencywide Economic Analysis Unit, Air Resources Board. Economic Analysis for Proposed Regulation Department of Pesticide Regulation No. 11-002. Memorandum to Linda Irokawa-Otani, Regulations Coordinator, DPR. January 6, 2011.